

# VIRGINIA WILDLIFE

SEPTEMBER 1992

ONE DOLLAR





It's always the same. A few rows of corn have been cut, but not enough to matter to the birds. It's deathly hot, and there's no wind. The sweat drips down your shirt and it's only an hour past noon. Looking around, you don't see the first bird. Not on a wire, in the air, or on the ground. Heck, you can't even see the ground for the green corn that's about twice as tall as you are. If you happened to actually drop a dove, you had better have a dog to sniff it out of the sea of corn or soybeans that's been planted, or you'll spend the rest of the day looking for one bird.

It's all pretty awful. You grin and settle in.

It's Opening Day. It's the beginning again. No matter that the same ritual is repeated every year, same month, same time. It's new all over again. It wouldn't be right to do the sensible thing and wait until a fine day when the doves are flying and the crops have been taken in. After all, it's Opening Day. Come rain, heat, empty skies or fields full of green corn, we'll be there.

Actually, it's a privilege to be there. There have been years past when I've found myself without an invitation to shoot on Opening Day. I guess I could have tried those places that let you onto their places for a few dollars per day. But, to me, having to pay for a stand on Opening Day is a bit like having to pay for Christmas dinner. I know a lot of people who do both, but I've always felt that Opening Day is a day that should be shared with friends and not strangers; a day when acts of kindness should be offered with no strings attached, out of respect for the way things used to be when the world was not quite so large and untamed a place.

So, I feel the luckiest of us all are those who travel back to the same

fields every year, those who already have held long talks on porches with landowners about what's been planted and where the best spots will be to hang a few decoys on a wire. It'll be about June and July when the discussions really start to get going, with arms waving and fingers pointing and men acting out last year's stories. They will be gearing up for the season some three or four months before it actually gets here. They will have been counting doves for at least a month, calculating exactly when the corn will be cut, and they will have spent weekends reloading shotgun shells. A few of the diehards will even have thrown a few clay birds to practice up on. The rest of us just laugh. We resign ourselves to looking like fools on Opening Day. Heck, we'll even be proud of it.

Dove hunts are places where honesty prevails and fakes are found out. I personally count myself lucky to have been invited back to a dove field in the Shenandoah Valley after being caught in a disreputable act. I admit, I did try to convince the crowd that my dog actually found and retrieved a lost bird. My only excuse was that my dog's performance that day was so disgraceful that his life was in jeopardy. I was afraid he would be confined to a kennel for the rest of his days. Desperate times call for desperate actions.

People really can't get away with much on a dove field. You can't even get away with looking good on a dove field like you can get away with it, say, on a ski slope. Just because you look like a hunter doesn't mean you are a hunter. You can be dressed in the best camouflage and L.L. Bean wear from head to toe, but if you don't hit a dove, everyone knows. If you don't shoot, everyone knows. And, if you happen to do something dreadfully stupid, like shooting at a dove 100 yards away, you won't get

away with it. People will laugh, hoot, and holler. A dove field is not a good place to hide your sins.

Some might say that there are better places to learn sportsmanship and grace under pressure. Perhaps there are more refined ways to learn valuable lessons about life and death, about friendship and honesty than by a day in a dove field. But, we hunters find ourselves digging deep into the mud, and blood and guts of living. And in truth, we learn to appreciate it all. We make no excuses for taking in all life has offered.

I think how blessed I am these days to be able to look forward to the dove season. I wish I had a cornfield, about 100 acres would do, that I could invite all my friends to for an Opening Day shoot. I'd do like my dear old friend Latane Trice does. Every year, at precisely 1:00, he rings the dinner bell to call everyone together. Every year he gives the same speech to the same people, about safety and doves, good dogs and good friends. Then he follows his guests out into the field, placing them safely apart, making sure the dogs have water and the hunters know which way the birds will fly. Latane knows no strangers on that day.

I count myself lucky that I have the chance to share the day with others, to watch the birds wing by, to hear the doves whistle and the shots ring out across the field. I count myself lucky another September has arrived.



# VIRGINIA WILDLIFE



The 1992 hunting season begins! Turn to page 9 for the latest information to make this the best season yet; photo by Rob Simpson.



**Cover:** Fox squirrel; photo by Larry Ditto.  
**Back Cover:** Photo by Bill Lea

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*Dedicated to the Conservation of Virginia's Wildlife and Natural Resources*

# The Magic of Hickories

by Bruce Ingram

*Trying to  
locate  
squirrels  
this early  
season?*

*Let a  
hickory tree  
show you  
the way.*

Your key to success with early season squirrels this year could have a lot to do with your knowledge of hickories. In normal years with good mast crops, the squirrel-hickory connection is a sure thing when it comes to a successful hunt in the early weeks of September.

Hickories are close relatives to walnuts and butternuts and can be characterized by their alternate compound leaves which typically have toothed borders. The trees usually have tall, ramrod straight trunks and the wood itself is very tough and strong, and has been used for everything from baseball bats and skis to gunstocks and tool handles.

Of the hickory varieties (genus *Carya*) native to the Old Dominion, three are found throughout much of the state and have great significance to wildlife. The mockernut (*Carya tomentosa*) is probably the most common member of the trio in the western part of the state and is a favorite menu item of early season squirrels.

Like all hickories, the mockernut is characterized by its alternate compound leaves which typically have toothed borders. Mockernut can be identified by its seven or nine shiny green leaflets which are hairy underneath. I enjoy crushing these leaves and inhaling the aromatic aroma that they emit. Later on in the season, these leaves become a beautiful golden yellow.

The elliptical nut of the mockernut is concealed within a thick, brown husk. The nutmeats themselves are easily ex-



photo by Lloyd B. Hill



tracted by squirrels, but we humans have to undergo quite a bit of labor to get at the meat. But that effort is worth it. I love the taste of mockernuts and have used them in cakes and breads.

Even better tasting is the shagbark (*Carya ovata*). The obvious characteristic of this variety is its rough, shaggy bark which often “flakes outward” from the tree in long, curved strips. Found in both the mountains and valleys, the shagbark possesses five to seven leaflets (usually the former) and those leaves turn golden-brown come autumn.

The third valuable member is the pignut (*Carya glabra*) and it typically has just five leaflets. The leaves are not as deep a green as those of the mockernut, and the bark is very smooth, especially when compared to that of the shagbark. The early pioneers gave the pignut its name because hogs were very fond of its nuts. Be that as it may, I have found the taste of pignuts to be far inferior to that of mockernut and shagbark hickory nuts. For more information on how to identify hickories, I recommend *The Audubon Society Field Guide to North American Trees* (Eastern Region) and the *A Field Guide to Trees and Shrubs* in the Peterson series.

### Hunting The Hickories

My favorite strategy for hunting a grove of hickories during the early season is to take a stand and wait the

squirrels out. Before setting up shop, however, it's crucial that you find fresh cuttings. Cuttings that are gray or moldy are obviously old and could indicate that the squirrels have exhausted the food supply in that area and have moved on. Conversely, cuttings that are green and fresh in appearance quite likely indicate that silvertails are still present.

Once you have determined that a grove is being used regularly, I believe that the old maxim “Good things come to those who wait” comes into play. After taking a stand in a likely area, I often won't see any squirrels for 30 or more minutes. But eventually I will hear the telltale rasping sound and later I will spy the shavings from hickory nuts filtering down through the tree limbs as a bushytail “peels” its prize.

Now it's decision time. Is it best to stalk the animal and move in for a close shot with a shotgun? Or is it best to wait even longer and hope that the animal moves to a tree closer to my position? I prefer the first option, because stalk hunting is so challenging, and is so satisfying when I succeed.

There are those who scorn the early squirrel season because it is supposed to be so “easy.” But, several Septembers ago, I was hunting a Craig County stand of hickories when I spotted a gray squirrel high in a mockernut. Some 40 minutes elapsed before I was finally able to

move into range of the animal and squeeze off a good shot from my 20-gauge. If that's not challenging hunting, I don't know what is.

Still hunting will also take early season squirrels. For this tactic, I like to establish a “mile run” of hickory stands and move from stand to stand. For example, I might have located four or five groves of hickories in a given locale and will spend the day hunting from one to the other. When I leave one stand, I move fairly rapidly; but as I near another one, I literally inch along hoping to see or hear a squirrel. This tactic works best on rainy days or early or late in the day.

If the hickory crop has failed, be sure to check out other food sources. For example, during the early seasons, I have found squirrels feeding on the fruits of such trees as white and red oaks, blackgum, staghorn sumac, walnut, and on apples in abandoned orchards. Last year, I had trouble locating squirrels in the mountains, but found scores of the creatures around bottomland cornfields. The deer and turkeys were often around those same fields.

Yes, the squirrel-hickory connection is an important one in Virginia. And knowing the intricacies of this relationship will help make all of us better woodsmen and hunters. □

*Bruce Ingram is the Virginia editor for Outdoor Life magazine and a frequent contributor to Virginia Wildlife.*



Mockernut Hickory  
illustrations by Spike Knuth



Pignut Hickory



Shagbark Hickory





# One-on-One Dove Hunt

by Gerald Almy

**M**ention doves and most Virginia hunters conjure up images of huge, freshly harvested corn fields surrounded by dozens of hunters baking collectively under a hot September sun. They are waiting for birds to fly on opening day. When the Gatorade and Cokes start to run low about mid-afternoon, mourning doves come winging in like gray ghosts. They're surprised by the gunfire, but anxious to feed and not easy to turn back. Not at first, anyway.

The shooting is fast and furious, particularly at a few key locations. At others it's only mediocre. Since there are so many other hunters, though, one can't just move where the birds are flying better. Someone else is already there. But no matter—dove hunting is a social event, anyway.

And when virtually all of the birds wise up late in the afternoon and start flying to other fields, there's still a delicious barbeque dinner waiting and more socialization to round out the afternoon.

It's a wonderful yearly event, and if you're in the right spot, these large-scale dove hunts can yield some good shooting. But if you don't have the connections to get invited on such a hunt, or simply don't care for the crowds involved, take heart. There's another kind of dove hunting—a kind I've specialized in for over 20 years. And thanks to increasing mourning dove populations over that time frame, the sport is as good today as it was when I first began trying it during my college days.


The dove hunting I do is mostly done alone or with one or two other friends to share the afternoon with. When I go hunting, one of the things I'm looking for is escape from

crowds, noise, loud voices and traffic jams. Those things are usually considered part and parcel of a dove hunt, but they don't have to be. And at day's end, chances are you'll have as many or more birds-per-man than those at the big social shoots do.

Even if you don't, you'll have a feeling that you are actually hunting the quarry instead of just showing up. Time must be taken for scouting and locating good areas to hunt. Then you must pattern the birds to see which flight routes they use, just like you'd pattern a buck's movement from feeding to resting areas.

And if the first spot you choose doesn't turn out to be the best, you can simply move to where more birds are flying. If too many birds enter a field using routes you haven't covered, you can sneak up and jump shoot them to get the doves flying again—perhaps past your partner's position. There's a great feeling of





*If you find  
yourself alone  
on a dove field,  
don't despair.  
There are ways  
to enjoy the  
challenge of  
dove hunting  
without the  
help of others.*

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being "in control" that's sometimes lacking at large dove shoots.

The first step in hunting doves by yourself or with one or two friends is to find a good place to hunt. This isn't hard, since doves are plentiful throughout Virginia. Both resident and migratory flocks are found from the marshlands of the Eastern Shore to the rugged Alleghenies in the west. September typically sees some 15 million doves in the state, and only a small fraction of these are harvested on the opener. More birds filter down from the North throughout the fall, with populations sometimes building to over 50 million when hunting reopens in late December and early January.

Besides large numbers of doves, Virginia still has enough small family farms that finding a field a few hunters can cover is fairly easy to do. Unless they are planning to hunt it themselves, most small farm owners

will allow you to hunt, either for free or for a reasonable fee. And they'll be particularly happy to do so when you tell them only a few people will be hunting, rather than a huge group.

Try to line up several such areas before opening day. Drive back roads in the area you want to hunt and locate birds flying or resting on power lines. Figure out where their principal flight routes are and their feeding destinations. Then approach the landowner and explain that you only will hunt with a couple of other people or alone and only on days when he says it's okay.

Avoid large agricultural spreads, since these aren't as easy for a small number of hunters to cover and chances are clubs will have already leased them. Small harvested fields of corn, sunflower, millet, milo and wheat are good for dove hunting without a crowd. If there's a watering pond nearby, evergreens handy for roosting and telephone or power wires for resting on, you've found a dove paradise.

Public lands with good dove hunting are also available. Both military reservations and some of the state's wildlife management areas offer good bets. Fort A.P. Hill near Bowling Green, Quantico Marine Corps Base north of Fredericksburg, and Fort Pickett near Blackstone all offer public dove hunting. The wildlife headquarters at these bases can provide maps, regulations, permits and information on where dove fields are located.

Among wildlife management areas, Amelia is a good bet for doves. It's located in Amelia County, 10 miles northeast of Amelia Courthouse and seven miles north of US 360.

Powhatan WMA is also good for doves. It's located in the piedmont section of the state, 35 miles west of Richmond. US 60 goes through the management area with Rt 627 providing access from the west, Va Rt 13 from the south.

The James River WMA in Nelson County covers 671 acres and provides some outstanding dove shooting at times. It lies on the north edges of the James River, 15 miles southeast

of Lovington and is reached from Rt 626 and Rt 743.

The Dick Cross WMA in Mecklenburg County is another good bet for doves. Situated 16 miles southwest of South Hill, just below John H. Kerr Dam, it sits on the north side of the Roanoke River. This WMA offers 1,372 acres of hunting and is reached via Rt 4. About 850 of those acres are leased to farmers on a percentage basis. The Game Department's portion of the crops are left in the fields to provide food for wildlife. There are also several millet fields planted especially to attract doves.

Chester Phelps WMA in Culpeper and Fauquier counties is a good bet for hunting doves in northern Virginia. Access is best on Rt 651, near Sumerduck, off of US 17. Most of this WMA is too thickly wooded for doves, but the open areas can provide good shooting at times. There are 10 parking areas available.

White Oak Mountain WMA provides good dove shooting for south-central Virginia hunters. The area lies in Pittsylvania County, 15 miles northeast of Danville and five miles southeast of the town of Chatham. The agricultural leases on this 2,712-acre tract provide good food supplies for doves.

Hunting dates may be restricted on some of these public areas and conditions may change from year to year as far as plantings and numbers of doves present, so always make an advance scouting trip and check with the local game warden or biologist to find out what the outlook for doves is and what times and days hunting is allowed. Try to pinpoint two or three prime areas, so if one is crowded or unproductive, you can move to another spot.

Solo or small-group dove hunting requires that you actually hunt your quarry instead of just showing up and relying on others to scare the birds past you. This is best done before you actually enter the field.

Stay a comfortable viewing distance back and watch the field for 20-45 minutes. Use your naked eyes and binoculars to pinpoint birds on the ground, flying, or resting in trees or powerlines. Watch their flight pat-



terns. Most doves will have a couple of alleys or lanes they use to fly in—over a point of land, a large tree, field corner or notch in a treeline. Locate where the birds enter the field most often and where there's enough cover such as woods, brush or standing corn that you can sit in front of or behind. You don't need to be totally hidden but something to break your silhouette definitely helps.

Wearing drab tan or olive clothes or even camouflage is also wise. Some of the tan and black linear camo patterns are especially good for dove hunting. If the birds are particularly skittish, a headnet or face paint can even help.

With a little observation, you can quickly pick out several likely stands before entering a field. If one doesn't pay off, move to another. Or if the birds change flight patterns as the afternoon wears, try a different stand.

Sometimes doves will allow you to get close enough to jump shoot them as you enter a field or after you see them land in a particular area. On one recent trip a friend and I each

bagged nearly half of our limits this way before we even took our stands. Walk hunchbacked as you approach doves or you'll never get in shotgun range, meaning 45 yards or less. If you have a friend or two along, station them at likely flyways before you try to flush the birds. The doves may fly over them as they leave.

Don't be concerned about spooking the birds away from the field permanently. Once you take a stand and stop moving, the birds will normally return in 10 to 30 minutes, if they've been feeding there regularly.

Another advantage to moving periodically is that it tends to keep the doves confused about where you are. When hunting alone, I may use four or five different stands in an afternoon, taking a few birds at each until I've collected a limit.

Small fields are best for hunting on your own or with just one or two partners. The birds are more concentrated and you can cover the major flight paths more readily. I hunt one field near my home where there's a dead tree birds gather in and two or

three routes they use to come in, plus a grove of cedars they roost in. This is the type of setup that produces great one and two-man hunts, if it's rested several days between shoots.

For this small-field setup, I prefer an improved cylinder and modified choke in a double barrel, generally using a 16 or 20 gauge. Twelves are also good, and an expert can take doves consistently with a 28. Best shot sizes are 7-1/2's and 8, with 8's tops for early season birds, 7-1/2's for winter hunting.

If you've shied away from dove hunting because you thought it was too social and only a sport for those with the right connections, try these tactics for hunting without the crowds. Hundreds of small fields that are useless for the big clubs are waiting for a solo hunter or small group with enough initiative to gain permission to seek out their graceful gray-winged quarry. □

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*Gerald Almy has been a full-time outdoor writer for 17 years. He is currently a hunting and fishing editor on the staff of Sports Afield magazine.*



*You don't have to be part of a crowd to hunt doves. But, if you hunt alone, you must pay attention to the birds' feeding patterns and travel lanes; photo Lynda Richardson.*



# 1992 Virginia Hunter's Guide





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## Licenses Required

If you hunt, you must have a valid license. Exceptions to this are: (1) Landowners and tenants who live on the land they rent and who have their landlord's written permission; (2) Virginia residents 65 years of age or older who hunt on private property in the county of their residence.

What licenses you may need depends upon what, where and even how you hunt. A *basic* resident or non-resident license is required of all hunters and is valid for hunting all upland game. If you want to hunt deer, bear and turkey, an *additional* license is required. A National Forest Permit is needed to hunt on National Forest land and a similar stamp is required to hunt the Piedmont State Forests.

A special archery license is re-

quired to hunt during special seasons open for bowhunting only.

A special muzzleloading gun license is required to hunt during the special muzzleloading season.

Bonus deer tags can be purchased which allow hunters to take bonus deer beyond statewide and special season bag limits in certain areas.

Some western counties require a game damage stamp to hunt deer or bear within their respective boundaries. These are issued by the clerks of the court in counties where they are required.

A federal migratory waterfowl stamp is required for hunting ducks or geese and is available at local post offices. A voluntary state waterfowl stamp is also available for \$5, the

proceeds from which will be used for habitat acquisition and restoration, and waterfowl research. A blind license must be displayed on both stationary and floating blinds in, or on the shores of public waters east of Interstate 95 except on the Eastern Shore counties. Consult the Game Law Summary for particular information.

A license year is from July 1-June 30. Licenses may be obtained from the clerks of most courts and from authorized Department agents conveniently located throughout the state. Requirement clarification may be obtained from the Virginia Department of Game and Inland Fisheries, Box 11104, Richmond, VA 23230-1104. Phone (804) 367-1000.





photo by Rob Simpson

## Fees

A \$.50 issuance fee will be added to each license.

### **Lifetime license to hunt**

(Big game license and all special stamps are required in addition to this license) . . . . . \$250.00

**Nonresident lifetime license to hunt** . . . . . 500.00

**County or city resident to hunt in county or city of resident** . . . . . 5.00

**State resident to hunt statewide** . . . . . 12.00

**State resident junior to hunt statewide (15 years and under)** . . . . . 7.50

**Disabled resident special lifetime license to hunt** (Big game license and all special stamps are required in addition to this license) . . . . . 5.00

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**Disabled Veteran resident lifetime license to hunt and fish** . . . . . 5.00

**Nonresident to hunt statewide** . . . . . 60.00

**Nonresident 3-day trip license to hunt statewide** . . . . . 30.00

**State resident big game license to hunt deer, bear and turkey** statewide required in addition to county or state hunting license, senior citizen or lifetime license . 12.00

**State resident junior big game license to hunt deer, bear and turkey** statewide (15 years and under) required in addition to state hunting license . . . . . 7.50

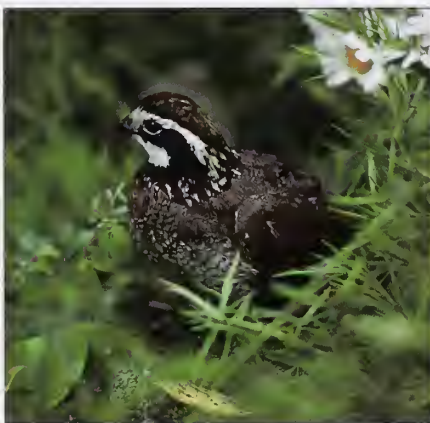
**State resident muzzleloading license to hunt statewide** . . . . . 12.00

**Nonresident muzzleloading license to hunt statewide** . . . . . 25.00

**State resident archery license to hunt statewide** . . . . . 12.00

**Nonresident archery license to hunt statewide** . . . . . 25.00

**Nonresident big game license to hunt deer, bear and turkey** statewide, required in addition to hunting license . . . . . 60.00



Bobwhite; photo by Lloyd B. Hill.

**Special stamp to hunt deer, bear in Alleghany, Craig, Floyd, Highland, Rockbridge, Russell, Scott and Wythe counties**, in addition to other licenses, and sold only by the clerks of those counties . . . . . 1.00

**Nonresident special stamp in Scott, and Russell counties** . . . . . 1.00

**Nonresident special stamp in Alleghany, Craig, Floyd, Highland, Rockbridge, and Wythe**

counties . . . . . 5.00

**Senior citizen resident (age 65) license to hunt** (big game license and all special stamps are required in addition to this license). . . . . 1.00

**Senior citizen resident (age 65) license to trap** (big game license and all special stamps are required in addition to this license). . . . . 1.00

**National Forest permit to hunt, fish or trap on national forests**, required in addition to hunting license (holders of senior citizen age 65, license excepted) . . . . . 3.00

**Permit to hunt or trap on Appomattox-Buckingham, Cumberland-Prince Edward and Pocahontas State Forests** (sold by the Division of Forestry) may be obtained from Forest Headquarters or Clerk of Court in local counties. . . . . 5.00

**Federal migratory bird stamp to take migratory waterfowl**, required of persons 16 years of age and over in addition to hunting license and sold at U.S. Post Offices . . . . . 15.00

**Virginia migratory waterfowl stamp** (voluntary) . . . . . 5.00

**Nonresident to hunt on shooting preserves** only obtainable in counties in which preserves are located . . . . . 12.00

**County or city resident to trap in county or city of residence** . . . 10.00

**State resident to trap statewide** . . . . . 35.00

**Nonresident permit for trapping on private land by permission** . . 130.00

**Resident bonus deer tags (2)** valid in all counties east of the Blue Ridge and Botetourt, Clark, Frederick and Warren counties (also required to be purchased by landowners and senior citizens) to take bonus deer beyond statewide and special season bag limits . . . . . 12.00

**Nonresident bonus deer tags (2)** valid in all counties east of the Blue Ridge and Botetourt, Clark, Frederick and Warren counties (also required to be purchased by landowners and senior citizens) to take bonus deer beyond statewide and special season bag limits. . . . . 12.00



# Hunting Laws



photo by Lloyd B. Hill

## Blaze Orange Required

Every hunter or person accompanying a hunter during a firearms deer season shall wear a blaze orange hat or blaze orange upper body clothing that is visible from 360 de-

grees or display at least 100 square inches of solid blaze orange material at shoulder level within body reach and visible from 360 degrees. Blaze orange is not required (but recommended) during the special muzzleloading season or during spring

gobbler season. Fall turkey hunters will be required to wear blaze orange during that part of the fall turkey season that falls within the firearms deer season. Those not required to wear blaze orange are waterfowl hunters who hunt from stationary or floating blinds, over decoys, in marshes and swamps, or from a boat or other floating conveyance; individuals participating in hunting dog field trials and fox hunters on horseback without firearms.

## Steel Shot Zones

Steel shot is required statewide for waterfowl hunting.

## Hunter Education

All first-time hunters and anyone from the ages of 12 to 15 years old will have to demonstrate that they have successfully completed an approved hunter education course before they can buy a hunting license. Persons 16 years old or over will be exempted if they have held a hunting license in prior years. Virginia recognizes all other states' and countries' hunter education programs. For convenience, current licensed hunters should save their old license until they buy their new ones. For information on hunter safety courses in your area, contact the hunter education training sergeants listed below.

### Region 1

Diane Gawrys, Williamsburg Office  
(804) 253-7072

### Region 2

Mike Ashworth, Lynchburg Office  
(703) 525-7522

### Region 3

Harry Street, III, Marion Office  
(703) 783-6185

### Region 4

Dee Watts, Staunton Office  
(703) 332-9210

### Region 5

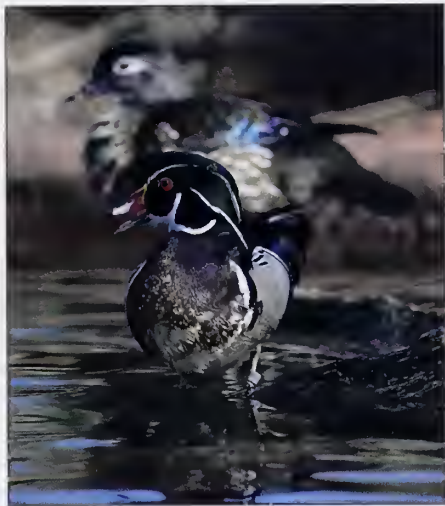
Randy Grauer, Fredericksburg Office  
(703) 899-4169



# Where to Hunt

**F**inding good places to hunt in Virginia requires planning. Simply traveling the highways and byways until you see unposted land is not the right way to hunt at all!

No privately owned land, posted or not, is open to hunting without first obtaining permission. Written permission is required on posted land and verbal permission in all other cases. Posted land, in addition to signs, may be recognized by silver or aluminum painted stripes on trees. Public hunting lands (state and federal) are also available, as well as lands managed by private timber companies. Below is a description of the public hunting lands available in Virginia.



Wood ducks; photo by David Vinyard.

## Game Department Public Hunting Lands

The Department of Game and Inland Fisheries owns approximately 176,000 acres of land in Virginia purchased with hunter license dollars and open to public hunting with a minimum of restrictions. With the exception of the daily blind permits on waterfowl areas at Back Bay and Hog Island, there is no charge for hunting on these areas. Lands owned

by Game Department are marked with yellow boundary paint. Hunting seasons and bag limits on Department areas usually conform to those for the surrounding county. Most are open for the early archery season. Dove hunting is permitted during the regular open season on Wednesdays and Saturdays only. Hunter access roads on Department lands normally open to motor vehicles will be open as indicated (weather permitting):

*Statewide:* 1st Saturday in October-2nd Saturday in February and 1st Saturday in April to 3rd Saturday in May.

Foot travel is invited on roads closed to motor vehicles.

Primitive camping (no developed facilities) is permitted, except as otherwise posted, on Department lands not to exceed a maximum of 7 days and in groups not to exceed 3 camping units. Camping is prohibited on or within 100 yards of any Department owned or controlled boat ramp or fishing lake.

**Amelia Wildlife Management Area**—2,217 acres in Amelia County. Deer, turkey, squirrel rabbit, quail, dove, and waterfowl. David N. Ellinghausen, Wildlife Biologist Assistant, c/o Hunting Information, HCO6, Box 46, Farmville, VA 23901.

**Back Bay Hunting Areas**—Pocahontas, 796 acres; Trojan, 351 acres. Fee hunting areas with blinds allocated by drawing. Information on blinds, fees, and drawings available from the Game Department after Labor Day. Lionel Ewell, Area Manager, P.O. Box 7159, Virginia Beach, VA 23457.

**Briery Creek Wildlife Management Area**—2,968 acres in Prince Edward County. Deer, turkey, quail, dove, rabbits, squirrels and waterfowl. Waterfowl and dove hunting permitted during regular open season on Wednesdays and Saturdays and season opening date only. Robert L. Turney, WMA Supervisor, 67 Morningside Rd., Cartersville, VA 23027.

**C. F. Phelps Wildlife Management Area**—4,540 acres in Fauquier and Culpeper Counties. Deer, turkey, squirrel, rabbit, quail, waterfowl,

and dove (on certain days). Good access to Rappahannock River. Robert D. Henson, Wildlife Biologist Assistant, Route 2, Box 105, Remington, VA 22734.

**Chickahominy Wildlife Management Area**—5,155 acres in Charles City County. Deer, turkey, squirrel, rabbit, quail, dove and waterfowl. Floating waterfowl blinds or hunting from shore with a distance of 500 yards between hunters. Primitive camping available with a maximum stay of 7 days. David Brime, WMA Supervisor, 12510 Eagles Nest Road, Charles City, VA 23030.

**Clinch Mountain Wildlife Management Area**—25,477 acres in Smyth, Russell, Tazewell and Washington Counties. Bear, deer, turkey, squirrel, rabbit, grouse and waterfowl. Dan Lovelace, Wildlife Biologist Assistant, Route 2, Box 569, Saltville, VA 24370.

**Crooked Creek Wildlife Management Area**—1,785 acres in Carroll County. Deer, turkey, rabbits, squirrel and grouse. D. H. Martin, WMA Supervisor, Rt. 2, Box 171, Woodlawn, VA 24381.

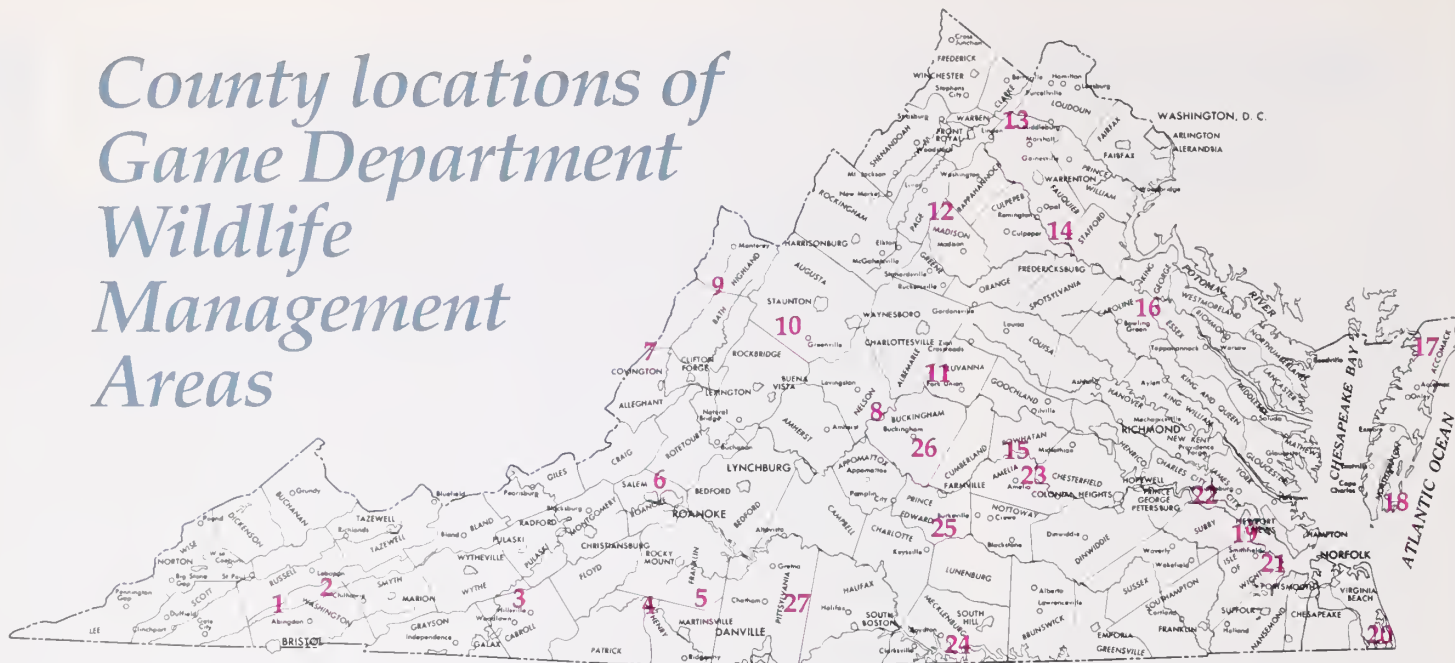
**Dick Cross Wildlife Management Area**—1,372 acres in Mecklenburg County. Dove hunting (Opening Day and then Wednesdays and Saturdays) and upland game. No waterfowl hunting allowed. Danny W. Johnson, WMA Supervisor, Route 2, Box 100, Clarksville, VA 23927.

**Fairy Stone Farms Wildlife Management Area**—5,343 acres in Patrick and Henry Counties. Camping nearby at Fairystone State Park and Philpott Reservoir. Deer, turkey, squirrel, raccoon, dove and waterfowl. Mark Frank, Wildlife Biologist Assistant, Route 2, Box 185, Bassett, VA 24055.

**G. Richard Thompson Wildlife Management Area**—4,160 acres in Fauquier County. Deer, turkey, rabbit, squirrel and grouse. Ron Hughes, Wildlife Biologist Assistant, P.O. Box 349, Sperryville, VA 22740.



# County locations of Game Department Wildlife Management Areas



- |                           |                                      |                               |                           |
|---------------------------|--------------------------------------|-------------------------------|---------------------------|
| 1 Hidden Valley (6,400a)  | 8 James River (671a)                 | 15 Powhatan (4,415a)          | 22 Chickahominy (5,155a)  |
| 2 Clinch Mt. (25,477a)    | 9 Highland (13,979a)                 | 16 Pettigrew (934a)           | 23 Amelia (2,217a)        |
| 3 Crooked Creek (1,785a)  | 10 Goshen-Little North Mt. (33,666a) | 17 Saxis (5,775a)             | 24 Dick Cross (1,372a)    |
| 4 Fairy Stone (5,343a)    | 11 Hardware River (1,034a)           | 18 Mockhorn I. (9,452a)       | 25 Briery Creek (2,968a)  |
| 5 Turkeycock Mt. (2,679a) | 12 Rapidan (9,525a)                  | 19 Hog Island (3,908a)        | 26 Horsepen (3,000a)      |
| 6 Havens (7,160a)         | 13 G. Richard Thompson (4,160a)      | 20 Pocahontas/Trojan (1,148a) | 27 White Oak Mt. (2,712a) |
| 7 Gathright (13,428a)     | 14 C. F. Phelps (4,540a)             | 21 Ragged Island (1,537a)     |                           |

**Gathright Wildlife Management Area**—13,428 acres in Bath County. Deer, turkey, squirrel and waterfowl. Kenneth R. Sexton, WMA Supervisor, Route 2, Box 648, Hot Springs, VA 24445.

**Goshen Wildlife Management Area**—16,128 acres in Rockbridge County. Bear, deer, turkey, squirrel and grouse. H. Eugene Sours, WMA Supervisor, Box 32, Swoope, VA 24479.

**Hardware River Wildlife Management Area**—1,034 acres in Fluvanna County. Deer, turkey, squirrel rabbit, quail, waterfowl and dove (on certain days). Robert D. Henson, Wildlife Biologist Assistant, Rt. 2, Box 105, Remington VA 22754.

**Havens Wildlife Management Area**—7,160 acres in Roanoke County. Bear, deer, turkey, squirrel and grouse. Foot access only. Laura P. Long, Wildlife Biologist Assistant, P.O. Box 829, Buchanan, VA 24066.

**Hidden Valley Wildlife Management Area**—6,400 acres in Washing-

ton County. Bear, deer, turkey, squirrel and grouse. Dan Lovelace, Wildlife Biologist Assistant, Route 2, Box 569, Saltville, VA 24370.

**Highland Wildlife Management Area**—14,284 acres in Highland County. Bear, deer, turkey, squirrel, rabbit and grouse. Rodger L. Propst, Wildlife Biologist Assistant, HCO3, Box 70, Monterey, VA 24465.

**Hog Island Waterfowl Management Area**—3,908 acres in Surry County. Bowhunting for deer during special archery early season. Managed waterfowl hunting. Fee hunting area. Advance fee reservation required. Information on fees and drawings available from the Game Department after Labor Day. Clyde Abernathy, Area Manager, RFD, Surry, VA 23883.

**Horsepen Lake Wildlife Management Area**—3,000 acres (18-acre lake) in Buckingham County. Deer, turkey, squirrel, rabbit, raccoon, dove, quail and waterfowl. For information, write: c/o Department of Game and Inland Fisheries, Wildlife

Division, Rt 6, Box 410, Forest, VA 24551.

**James River Wildlife Management Area**—671 acres in Nelson County. Deer, turkey, squirrel, raccoon, rabbit, quail, dove and waterfowl. For information, write: c/o Department of Game and Inland Fisheries, Wildlife Division, Rt 6, Box 410, Forest, VA 24551.

**Little North Mountain Wildlife Management Area**—17,538 acres in Augusta and Rockbridge Counties. Bear, deer, turkey, squirrel and grouse. H. Eugene Sours, WMA Supervisor, Box 32, Swoope, VA 24479.

**Mockhorn Island Wildlife Management Area**—9,452 acres in Northampton County. Rail and limited waterfowl. Accessible by boat only. Granville Ross, WMA Supervisor, P.O. Box 212, Hallwood, VA 23359.

**Pettigrew Wildlife Management Area**—934 acres in Caroline County. Deer, turkey, squirrel, dove and quail. Milton Gallahan, WMA Super-



visor, Route 3, Box 1186, King George, VA 22485.

**Powhatan Wildlife Management Area**—4,415 acres in Powhatan County. Deer, turkey, squirrel, rabbit, quail, waterfowl and dove. David N. Ellinghausen, Wildlife Biologist Assistant, HCO6, Box 46, Farmville, VA 23901.

**Ragged Island Wildlife Management Area**—1,537 acres in Isle of Wight County. Waterfowl and deer by shotgun and bow and arrow only. Clyde Abernathy, WMA Supervisor, RFD, Surry, VA 23883.

**Rapidan Wildlife Management Area**—9,525 acres in Madison and Greene Counties. Bear, deer, turkey, squirrel, rabbit and grouse. Ron Hughes, Wildlife Biologist Assistant, P.O. Box 349, Sperryville, VA 22740.

**Saxis Wildlife Management Area**—5,775 acres in Accomack County. Deer, raccoon and waterfowl. Granville Ross, WMA Supervisor, P.O. Box 212, Hallwood, VA 23359.

**Stewart's Creek Wildlife Management Area**—1,100 acres in Carroll County. Grouse and turkey. For information, write: c/o Joe Williams, Fisheries Biologist, 2541 Oregon Ave, Roanoke, VA 24015.

**Turkeycock Mountain Wildlife Management Area**—2,679 acres in Franklin County. Deer, turkey, squirrel, and raccoon. Mark Frank, Wildlife Biologist Assistant, Route 2, Box 185, Bassett, VA 24055.

**White Oak Mountain Wildlife Management Area**—2,712 acres in Pittsylvania County. Deer, turkey, squirrel, rabbit, quail and dove. Jessie B. Robertson Jr., WMA Supervisor, Route 1, Box 76-G, Chatham, VA 24531.

## Waterfowl Blind Drawing On Management Areas

A public drawing for waterfowl blinds will be held at Barbours Hill and Hog Island Wildlife Management Areas. However, regulations concerning Pocahontas Wildlife

Management Area hunt are currently under review by the Department. For information on these hunts contact VDGIF, 4010 W. Broad St., Richmond, VA 23230-1104, 804/367-1000 after Labor Day.

### General Rules and Procedures for Barbours Hill, & Hog Island Areas

Before any persons may hunt on these areas, they must first apply for shooting dates and be awarded same by an authorized representative of the Department of Game and Inland Fisheries. All hunters must check in and out of the respective area headquarters. Only applications with complete information, including a current year Virginia hunting license number (exactly as printed), will be entered in the public drawing. Hunters wishing to apply to either area need to submit a postcard or 3 X 5 card with the following information: Name, address, telephone number, current VA hunting license number, and choice of 3 hunt dates. *Note:* Areas are open only during 2nd and 3rd split of the waterfowl season on Tuesdays, Thursdays and Saturdays. All applications must be received in the Richmond office by 5:00 p.m. on October 23, 1992.

Mail applications to Department of Game and Inland Fisheries, Wildlife Division, 4010 West Broad St., P.O. Box 11104, Richmond, VA 23230-1104.

**Only one application per person will be accepted for each area.** If duplicate license numbers are submitted for an area, **both applications will be voided.** Send no money with application. A \$15 fee will be due from the permittee at the area on the date of the hunt. No cash. After the public drawing, reservations must be obtained in person or by mail only from the appropriate Area Manager.

**Pocahontas Area**—Lionel Ewell, Area Manager, Box 7159, Virginia Beach, VA 23457, 804/426-6320.

**Barbours Hill Area**—\$15 fee. Leo Dozier, Area Manager, Box 7010, Virginia Beach, VA 23457, 804/426-6025.

**Hog Island Area**—\$15 fee. Clyde Abernathy, Area Manager, RFD, Surry, VA 23883, 804/357-5224.

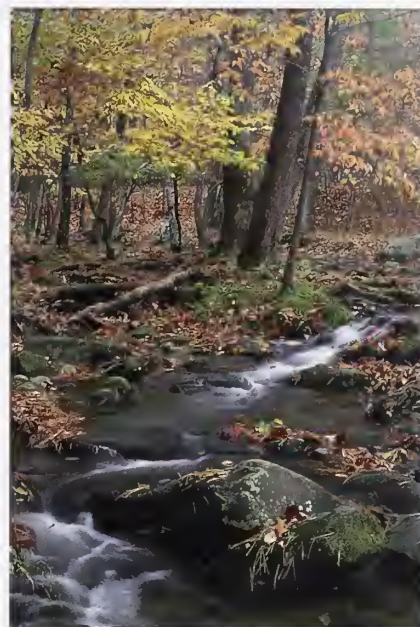


photo by Bill Lea

## National Forests

The George Washington and Jefferson National Forests provide the largest amount of land open to the general public for hunting in Virginia. Most of the 1.5 million acres of the National Forests is open to public hunting and camping unless specifically designated closed. An annual \$3 stamp is required to hunt or fish on the National Forest. The stamp can be purchased at most outlets that sell hunting licenses. Hunting regulations, seasons and bag limits conform with state and county regulations. Information can be obtained from:

**George Washington National Forest** Headquarters, Harrison Plaza, 101 North Main Street, Harrisonburg, VA 22801, phone (703) 433-2491; Ranger District Offices in Bridgewater, Buena Vista, Covington, Edinburg, Hot Springs and Staunton.

**Jefferson National Forest Headquarters**, Federal Building, 210 Franklin Road, SW Roanoke, VA 24001, phone (703) 982-6270; Ranger District Offices in Blacksburg, Wise, Natural Bridge Station, Marion, New Castle and Wytheville.



## Cooperative Public Hunting Areas

The Department of Game and Inland Fisheries is responsible for wildlife management on some 250,000 acres of land it does not own in return for hunting privileges and benefits to sportsmen.

### Piedmont State Forests

The following State Forests are owned and managed by the Virginia Department of Forestry for public use: **Appomattox-Buckingham State Forest**—19,705 acres south of Route 24 in Appomattox and Buckingham Counties. **Cumberland State Forest**—16,779 acres in western Cumberland County north of U.S. 60. **Pocahontas State Forest**—5,873 acres south of Richmond in Chesterfield County. (The portion of this area which adjoins the State Park and selected buffer zones adjacent to State Forest boundaries are closed to hunting.) **Prince Edward-Gallop State Forest**—6,964 acres in eastern Prince Edward County north of Route 360.

In addition to the state or county hunting license, a special State Forest hunting stamp (permit) is required. At a cost of \$5, this State Forest permit can be purchased from selected issuing agents, many located near the properties. They are also available by mail. To purchase by mail, send a self-addressed, stamped envelope along with the individual's name and state hunting license number to the Cumberland State Forest Office or the Appomattox-Buckingham State Forest Office (address below).

Seasons and bag limits generally coincide with those of the included county/counties of each State Forest. However, there are some differences which need to be recognized. Consult the Game Laws Summary produced by the Department of Game and Inland Fisheries for specific exceptions.

Special safety zones are established on each State Forest to protect residences, offices and working facilities. These are adequately "signed." Included State Parks are also protected. All such areas, in addition to all physical facilities and improvements are shown on State Forests maps which are available from each State Forest office. For additional information, State Forest maps, hunting permits, and other details, write to: Cumberland State Forest, Route 1, Box 250, Cumberland, VA 23040. Telephone: (804) 492-4121 or Appomattox-Buckingham State Forest, Route 3, Box 133, Dillwyn, VA 23936. Telephone: (804) 983-2175.

### Military Areas

**Marine Corps Base, MCCDC Quantico.** 50,000 acres in Fauquier, Prince William and Stafford Counties. A minimum of 15 percent of the available hunting spaces each day are reserved for off-post civilian hunters. All must purchase the annual base hunting permit after attending a mandatory hunting orientation/safety lecture which is given at the base game checking station. Lectures are given from October 1-January 31 and during spring gobbler season. For information concerning cost of permits and times of lectures, call (703) 640-5523. Daily hunting quotas vary depending upon military commitments. Shotgun slugs are required for deer hunting. Deer may not be hunted with dogs or by driving. Certain areas allow muzzleloaders.

**Fort A.P. Hill Military Reservation.** 76,000 acres in Caroline County. Fee permits (\$20-adults, \$10-youths) issued on a first-come, first-served basis from hunting section office. Shotgun and bow and arrow only are permitted. Dogs may not be used to hunt deer. Dove hunting on Wednesdays and Saturdays only during the regular dove season. Maps available. Write to: Community Recreation Division Attn: Hunt Check Station, Fort A.P. Hill, Bowling Green, VA 22427-5000. Enclose a self-addressed, stamped envelope. Phone (804) 633-8300 or 633-8219.



White-tailed deer; photo by Tim Black.

**Radford Army Ammunition Plant.** 2,800 acres in Pulaski County. Deer is the only legal game that can be hunted. Hunters are selected from Game Department applications received before September of each year. Applications are available beginning July 1st of each year. A total of 200 hunters are selected for 4 archery hunts and 90 selected for 3 shotgun hunts. All hunting is restricted to Saturdays and holidays (Thanksgiving). All hunting is restricted to the available stands. Application fee is \$3.50 and the hunt permit is \$10.00. Hunters between the ages of 12-18 must be accompanied by a licensed hunting adult. All other appropriate licenses are required (big game, archery, state license). For further information, contact: Commander RAAP, Attn: Deer Hunt Coordinator, Radford, VA 24141. Other contacts: Virginia Department of Game and Inland Fisheries, Rt. 1, Box 107, Marion VA 24354. Phone: (703) 783-4860 or the Richmond Office at 4010 W. Broad Street, Richmond VA 23230-1104. Phone: (804) 367-1000.

**Fort Pickett Military Reservation.** 45,198 acres in Brunswick, Dinwiddie and Nottoway Counties. Hunting normally permitted Monday through Saturday except Christmas Day. Daily hunting quotas are based on troop training activities.





photo by Soc Clay

Geographical areas on Fort Pickett may be closed at any time due to military training missions on the installation. Dogs may be used to hunt both big and small game with some areas off-limits to hunting deer with dogs. Dove hunting is permitted on Wednesdays and Saturdays (afternoons only). Hunters must wear blaze orange (minimum of 500 square inches above the waist) during the deer firearms season. In addition to a state hunting license, a Fort Pickett permit is required. The permit fee is \$12.00 plus a \$3.00 outdoor activity fee. Hunting information and map may be obtained by sending a self-addressed, stamped envelope to: HQ, U.S. Army Garrison, Attn: Game Check Station, Fort Pickett, Blackstone, VA 23824. For additional information/inquiries, phone (804) 292-2618.

## U.S. Army Corps of Engineers

- 5,900 acres in Franklin, Henry, and Patrick counties surrounding Philpott Lake. No permit required. Map available from Resource Manager, Route 6, Box 140, Bassett, VA 24055.

- 38,000 acres in Charlotte, Halifax and Mecklenburg Counties surrounding John H. Kerr Reservoir. No special permit required. Nineteen

developed wildlife management areas. Map and management area guide available from Reservoir Manager, Route 1, Box 76, Boydton VA 23917.

- 7,523 acres in Dickenson County surrounding John W. Flannagan Dam and Reservoir. No permit required. For additional information contact Resource Manager, Route 1, Box 268, Haysi, VA 24256-9736, (703) 835-9544.

- 88 acres in Wise County surrounding North Fork of Pound River Lake. No special permit required. For additional information, contact: Project Supervisor, Route 1, Box 369, Pound, VA 24279-9369, (703) 796-5775.

## State Parks

When traveling through state park areas not designated for hunting, guns **must** be unloaded and cased.

**Fairy Stone State Park**—2,400 acres in Patrick and Henry Counties only. No permit required. Remainder of park closed to hunting, but open for other park activities. No maps. Write: Route 2, Box 723, Stuart, VA 24171.

**Sailor's Creek Battlefield State Park**—220 acres in Amelia and Prince Edward Counties. Special designated areas of hunting are

marked. No permit required. No maps. For information, contact Twin Lakes State Park, Route 2, Box 70, Greenbay, VA 23942.

**Grayson-Highland State Park**—1,200 acres in Grayson County. No permit required. Maps available. Write: Route 2, Box 141, Mouth of Wilson VA 24363. Phone: (804) 786-1712.

**False Cape State Park**—4,321 acres in Virginia Beach. Limited waterfowl hunting by permit. Limited deer and feral hog hunting. Contact Area Manager, Leo Dozier, P.O. Box 7010, Virginia Beach, VA 23457; (804) 426-6025.

**Occoneechee State Park**—2,100 acres in Mecklenburg County on Buggs Island Lake. No permit required. Maps available. Write: Rt. 2, Box 3, Clarksville, VA 23927. Phone: (804) 786-1712.

While not designated for hunting, there will be camping available through December 1, 1992 at Bear Creek Lake State Park which is adjacent to Cumberland State Forest. For information, phone (804) 786-1712.

## Industrial Lands

**Appalachian Power Cooperative Management Areas**—4,800 acres surrounding Smith Mountain Lake in Bedford and Pittsylvania Counties. No permit required. No maps available. For information, contact Department of Game and Inland Fisheries, Route 1, Box 76-G, Chatham, VA 24531, (804) 432-1377.

**Union Camp Corporation Cooperative Management Area**—6,000 acres in Brunswick County near Lawrenceville south of Route 58 in several tracts. No permit required. Map available. Write: Union Camp Corporation, Nottoway Forest, 12120 Wakefield Rd., Sedley, VA 23878.

**Westvaco Cooperative Management Area**—25984. Phone (804) 352-7132. 900 acres in Amherst County. No permit required. Maps are not available. Write: Westvaco Timberland Division, P.O. Box 577, Rupert, WV 25984.





photo by Lloyd B. Hill

## Corporate Timberlands

Many corporate timber companies open their lands to public hunting. They require an annual permit, however, and the fees vary. Before purchasing a permit, be sure to check with the company on the specifics of the lands they have available to public hunting, since many reserve large tracts for lease to hunt clubs. A state hunting license is required in addition to any timber company hunting permit.

### Bear Island Timberlands

Approximately 100,000 acres available for permit hunting throughout central piedmont Virginia. Permits are valid on any company properties which are not posted or leased to private hunt clubs. Permits may be obtained by **mail only**. Cost of permits is \$15 each, and \$10 for disabled or senior citizens with proof of disability or age required. Individual county maps are available at \$1 per map. Please write Bear Island

for a specific listing of counties with tracts available for permit hunting. Requests for maps must be accompanied by a 9" x 12" self-addressed envelope with \$0.52 postage. Address: Bear Island Timberlands Co., L.P., Hunting Permits, P.O. Box 2119, Ashland, VA 23005. Phone: (804) 227-3394. Permits are valid from September 1, 1992 through May 31, 1993.

### Chesapeake Forest Products Company

Public hunting permits are sold at the four Woodland Regional Offices during normal business hours or by mail. Permits are valid on all lands posted with Chesapeake white metal posted signs. Some restrictions may apply on certain tracts. The West Point Office will be open the first three Saturdays in November from 9 A.M. - noon. All mail requests must be accompanied by a self-addressed, stamped envelope. Maps are available at a cost of \$1.00 per request. Permits will not be issued to persons under the age of seven. Permits are valid for hunting only. Permits are \$15. The Woodland Regional Offices are:

**West Point Region**—approximately 46,000 acres located in Charles City, Gloucester, James City, King and Queen, King William, Mathews, Middlesex and New Kent Counties. Chesapeake Forest Products Company, Hunting Permits, 15th and Main Streets, West Point, VA 23181. Phone: (804) 843-5298.

**Pocomoke Region**—approximately 15,000 acres located in Accomack (VA), Wicomico, Worcester, and Somerset (MD). Chesapeake Forest Products Company, Hunting Permits, Box 300, Pocomoke City, MD 21851. Phone: (301) 957-1521.

**Keysville Region**—Approximately 12,000 acres located in Charlotte, Halifax, Lunenburg and Prince Edward Counties. Chesapeake Forest Products Company, Hunting Permits, Box 450, Keysville, VA 23947. Phone: (804) 736-8505.

**Warsaw Region**—Approximately

8,000 acres in Caroline, Essex, Lancaster, Northumberland, Richmond, Spotsylvania and Westmoreland Counties. Chesapeake Forest Products Company, Hunting Permits, P.O. Box 1027, Warsaw, VA 22572. Phone: (804) 333-4325.

### The Glatfelter Pulp Wood Company

Counties with one or more tracts open for hunting include Appomattox, Buckingham, Caroline, Culpeper, Cumberland, Fauquier, Fluvanna, Halifax, Hanover, King George, Louisa, Lunenburg, Nottoway, Orange and Spotsylvania Counties. Total is about 25,000 acres. Some acreage is leased for exclusive use and so posted; all other unposted properties open to permit holders. Permits are available by mail only after completing an application. All applications must be completed and mailed to Thomas N. Reeder, Jr., District Manager, P.O. Box 868, Fredericksburg, VA 22404. All applications must be accompanied by a stamped, self-addressed envelope and a check or money order for \$15.00 for each permit. Maps are available only when purchasing a permit. They are \$2.00 per set.

### Lester Properties

There are 20,000 acres located in the counties of Franklin, Halifax, Henry and Pittsylvania. Tracts are leased to area sportsman's clubs. Several tracts are still available for lease. Contact: Kenneth O. Scruggs, Forestland Department Manager, Post Office Drawer 4991, Martinsville, VA 24115. Phone (703) 632-2195 ext. 250.

### Westvaco

More than 150,000 acres open in 20 counties, including Appomattox, Botetourt, Buckingham, Campbell, Halifax, Pittsylvania and Rockbridge. Some tracts leased exclusively to hunt clubs. Hunting/fishing permits for \$10, accompanied by self-addressed, stamped envelope. No maps. Write: Timberlands Division, P.O. Box 577, Rupert, WV 25984.



# 1992-93 Virginia Hunting Seasons Summary

(For more detailed information, ask you local license agent  
for a copy of the 1992-93 Game Laws Summary)

BEAR	October 10-November 7 November 23-January 2	Archery General Season
BOBCAT	November 2-January 30	Statewide (6 per year)
CROW	August 1-December 31 February 3-March 27	Statewide-Wednesday through Saturday only Statewide-Wednesday through Saturday only
DEER	October 1-November 30 October 10-November 14 November 9-November 14 November 16-January 2 November 16-November 28 November 16-January 2 November 30-January 2 December 1-January 2  December 21-January 2	Va. Beach, Chesapeake, Suffolk (east of Dismal Swamp) Archery Early Muzzleloader Isle of Wight, Suffolk (west of Dismal Swamp) West of Blue Ridge (general firearms) East of Blue Ridge (general firearms) Archery—West of Blue Ridge Archery—Virginia Beach, Chesapeake, Suffolk (east of Dismal Swamp) Late muzzleloader—designated western counties
FOX	Year-round November 2-January 30	Dogs only—statewide, with exceptions Statewide, with exceptions
GROUSE	November 2-February 13	West of I-95 (closed east of I-95)
PHEASANT	November 9-February 13 November 2-January 30 November 9-January 30	East of Blue Ridge, east of I-95 West of Blue Ridge East of Blue Ridge, west of I-95
QUAIL	November 9-February 13 November 9-January 30	East of I-95 West of I-95
RABBIT	November 2-January 30	Statewide (season closed to snowshoe hare)
RACCOON	August 1-May 31 October 15-March 10 October 15-January 31	Chase only-(private lands only) East of Blue Ridge West of Blue Ridge
SQUIRREL	September 5-January 30 October 10-January 30	Statewide—designated southern counties Statewide—designated northern counties
FOX SQUIRREL	Same as squirrel but only in counties west of the Blue Ridge and Fairfax, Fauquier (except C.F. Phelps WMA), Loudoun and Rappahannock	
TURKEY	October 10-November 7 November 2-November 14 November 2-November 14 November 23-January 2 November 2-January 2 April 17-May 22	Archery Designated eastern counties Designated central counties Designated central counties Designated southwest counties 1993 Spring Gobbler Season
DEER BAG LIMITS		
Statewide	2 per day, 3 per license year on big game license	
Archery	2 per day, 2 per season (one must be antlerless)	
Muzzleloader	1 per day, 1 per season (Early season—buck only; Late season—buck only except in counties where last 6 days are either sex)	
Bonus Tags	2 tags for \$12.00 (resident) or \$25.00 (nonresident), one either sex and one antlerless valid in all counties east of Blue Ridge and Botetourt, Clarke, Frederick and Warren	





## Resources

### Sporting Clays

The Department of Game and Inland Fisheries operates a sporting clays facility on 105 acres of the Amelia Wildlife Management Area. A group of six shooters (minimum of three, maximum of six) move through a course of simulated hunting situations and are challenged with clay targets imitating flying ducks, running rabbits, and flushing quail among others. The cost per round of 50 for adults is \$20.00 or \$15.00 with a valid Virginia hunting license and \$10 for youths (under 15 years old, minimum age 12). The following items are necessary for your visit: Shotgun (minimum 2-shot capacity is recommended), 50 shotgun shells (shot size not to exceed #7-1/2), 11 steel shot shotgun shells (shot size not to exceed #4) if you wish to shoot the over-water stations, hearing protection (earplug type are recommended) and safety glasses. The course is open on Fridays, Saturdays and Sundays by appointment

only. Reservations are required and will be made on a first-come, first-served basis. To make a reservation, call the Game Department at (804) 367-1000 or (804) 367-8464.

### Rifle Sighting-In Range

The Department of Game and Inland Fisheries has a public sighting-in range available for rifles and shotguns with slugs on the Amelia Wildlife Management Area. Built with safety and accuracy in mind, the range is a 6-station, benchrest-only facility, with 50 and 100-yd. target points. You may sight in any caliber rifle on the range, including black-powder rifles, along with shotguns with slugs. No pistols are allowed. Be sure to bring your own paper targets, cardboard backing, clothespins and tape. The range is open seven days a week from sunrise to sunset, except Mondays when the range is closed until 12 noon for maintenance. No reservations are required.

## Maps

A good map is essential for a successful hunting experience. Topographic maps are available from the following sources: **Virginia Reproduction and Supply Company**, 9 W. Cary St., Richmond, VA 23220, (804) 643-9116. **Virginia Division of Mineral Resources**, Box 3667, Charlottesville, VA 22903, (804) 293-5121. **U.S. Geological Survey**, Branch of Distribution, Box 25286, DFC, Denver, CO 80255. (Use this address if you know the particular map you want.) **U.S. Geological Survey**, National Cartographic Information Center (NCIC), 507 National Center, Reston, VA 22902, (703) 860-6045. (Use this address to request an index of the state maps available to find the particular map you are looking for.) Contact each firm individually for procedures and fee information.

## P.H.O.N.E

(Poachers Hurt Our Natural Environment Program)

The Department of Game and Inland Fisheries established a violation reporting program on October 1, 1986. A toll-free number (1-800-237-5712) is available 24 hours a day, 7 days a week including holidays, to report game, fish or boating violations. The P.H.O.N.E. Line is staffed 8 a.m. - 5 p.m. daily. An answering system will record call-back requests after hours.

A reward fund has been established by The Virginia Sportsmen Reward Fund, Inc., and is offered for information leading to an arrest. Callers may remain anonymous and are not required to testify in court.

## Shooting Preserves

The Virginia Department of Game and Inland Fisheries (VDGIF) authorizes the operation of shooting preserves throughout the Commonwealth. For information on shooting preserves in your area, contact: Nancy Dowdy, VDGIF, 4010 W. Broad Street, Richmond, VA 23230-1104, phone: 804/367-9588.



# Statewide Deer, Bear, and Fall Turkey Harvest

County	1989-1990			1990-1991			1991-1992		
	Deer	Bear	Turkey	Deer	Bear	Turkey	Deer	Bear	Turkey
Accomack	636	0	24	812	0	24	1195	0	0
Albemarle	2517	44	230	3115	24	304	3537	49	147
Alleghany	1993	23	184	2332	8	338	2230	60	135
Amelia	1712	0	279	2350	0	392	2477	0	204
Amherst	1692	22	302	1981	7	301	2332	20	158
Appomattox	753	0	248	916	0	256	912	0	97
Augusta	3454	55	211	3526	38	224	3825	73	153
Bath	4106	14	308	4430	10	453	4801	34	236
Bedford	3724	17	429	4686	11	595	6273	11	416
Bland	2022	3	315	2457	2	437	2907	5	200
Botetourt	3464	28	466	4569	12	563	4670	46	274
Brunswick	1632	0	211	1903	0	261	2008	0	128
Buchanan	28	0	1	3	0	1	27	0	0
Buckingham	2055	0	359	2549	1	464	2726	0	208
Campbell	667	0	209	825	0	223	1091	0	166
Caroline	1548	0	350	2117	0	379	2129	0	236
Carroll	913	0	451	1098	0	448	1421	0	270
Charles City	855	0	31	1168	0	50	1238	0	37
Charlotte	1157	0	180	1804	0	306	1717	0	140
Chesapeake	372	0	0	426	4	0	594	4	0
Chesterfield	794	0	67	1099	0	67	1194	0	37
Clarke	1065	0	21	1139	0	16	1597	0	17
Craig	3192	19	263	3853	10	361	2980	27	113
Culpeper	899	0	95	1231	0	111	1438	1	81
Cumberland	1740	0	352	2275	2	401	2412	0	203
Dickenson	5	0	2	1	0	0	387	0	61
Dinwiddie	1263	0	227	1393	0	282	1570	0	188
Essex	489	0	85	591	0	136	924	0	81
Fairfax	383	0	0	461	0	4	599	0	2
Fauquier	2702	0	80	3250	0	116	3550	0	69
Floyd	1019	0	262	1249	0	268	1629	0	208
Fluvanna	1445	0	224	1817	0	247	2009	0	164
Franklin	1891	0	386	2159	1	431	2756	0	256
Frederick	2665	0	85	2957	0	190	3778	0	142
Giles	2122	10	353	2811	8	494	2929	19	383
Gloucester	410	0	30	532	1	37	528	0	26
Goochland	902	0	192	1068	0	184	1463	0	129
Grayson	3321	0	307	3712	0	426	3638	0	261
Greene	205	20	29	298	7	51	390	22	18
Greensville	1134	0	24	1286	0	18	1282	0	18
Halifax	1376	0	349	1897	0	401	2001	0	360
Hanover	544	0	186	693	0	199	690	0	125
Henrico	523	0	21	620	0	33	721	0	19
Henry	1076	0	93	1129	0	74	1527	0	42
Highland	3157	21	151	3881	4	247	4190	18	243
Isle of Wight	1723	0	7	1854	0	1	2196	0	11
James City	577	0	6	715	0	2	722	0	16
King and Queen	998	0	241	1054	0	236	1308	0	238
King George	1004	0	13	1254	0	15	1398	0	35
King William	904	0	228	1301	0	263	1915	0	237
Lancaster	488	0	12	458	0	6	573	0	4
Lee	440	0	100	506	0	89	802	0	124
Loudoun	3371	0	47	3872	1	67	5771	0	41
Louisa	915	0	207	1227	1	272	1484	0	166
Lunenburg	1074	0	116	1393	0	154	1437	0	73
Madison	533	38	77	627	18	87	890	37	41
Mathews	95	0	0	144	0	3	171	0	0
Mecklenburg	1032	0	87	1351	0	103	1230	0	65
Middlesex	289	0	28	210	0	11	291	0	19
Montgomery	1437	5	214	1851	5	259	1654	2	149
Nelson	1144	38	193	1447	6	224	1229	41	100
New Kent	856	0	60	1185	0	63	1401	0	29
Newport News, Hampton	243	0	9	244	0	7	176	0	0
Northampton	488	0	1	544	0	0	787	0	0
Northumberland	587	0	20	686	0	10	730	0	8
Nottoway	1257	0	177	1536	0	160	1528	0	82
Orange	759	0	96	1145	0	117	1133	0	60
Page	1015	52	21	1185	44	44	1211	30	33
Patrick	1227	0	159	1427	0	209	1553	0	58
Pittsylvania	3416	0	363	3761	1	447	4715	0	293
Powhatan	1841	0	188	2360	0	225	2194	0	90
Prince Edward	1729	0	274	2037	0	342	2109	0	168
Prince George	1350	0	41	1530	0	68	1664	0	69
Prince William	799	0	30	1064	0	25	1139	0	27
Pulaski	1205	0	202	1432	1	220	1516	3	121
Rappahannock	1756	47	43	1486	14	94	1505	18	52
Richmond	672	0	25	880	0	19	874	0	27
Roanoke	356	9	71	609	0	99	602	3	66
Rockbridge	2809	35	244	3297	13	309	3410	25	173
Rockingham	3276	79	80	4132	25	107	4048	64	105
Russell	283	2	58	301	0	60	383	1	32
Scott	634	0	141	757	0	180	1343	0	210
Shenandoah	3058	15	124	3385	17	238	4195	18	157
Smyth	1565	1	184	1609	2	224	2407	5	178
Southampton	4363	0	10	4822	0	7	4820	0	0
Spotsylvania	469	0	84	724	1	115	583	0	66
Stafford	752	0	96	1015	0	62	879	0	41
Suffolk	1013	0	4	1477	3	3	1549	3	2
Surry	1981	0	13	2007	0	32	1974	0	33
Sussex	2677	5	77	2435	0	82	2382	0	70
Tazewell	624	0	107	694	1	104	1046	5	114
Virginia Beach	261	0	0	358	0	0	703	0	7
Warren	1898	22	54	1534	18	27	1888	13	19
Washington	600	1	78	668	1	128	813	0	90
Westmoreland	699	0	36	870	0	33	980	0	14
Wise	365	0	73	427	0	94	328	0	74
Wythe	1798	0	239	2344	1	313	2495	0	175
York	767	0	13	629	0	9	679	0	10
<b>Totals</b>	<b>135,094</b>	<b>625</b>	<b>13,743</b>	<b>160,329</b>	<b>323</b>	<b>16,857</b>	<b>179,105</b>	<b>657</b>	<b>10,523</b>

## 1992-93 Hunting Season Outlook

**Deer**  
by Bob Duncan, Chief, Wildlife

With no changes from the liberal deer hunting regulations put into effect last season, Virginia deer hunters can expect another excellent deer season this fall. An abundant acorn crop last fall will mean improved antler development, especially in areas where quality deer management programs or herd control measures have started taking effect. Abundant rainfall in many areas of the state during this year's growing season will also mean increased deer forage and deer in better condition. Fawn recruitment should be good to excellent given the mild winter and good food supply.

The 1991-92 deer season produced a record harvest of nearly 180,000 deer, which was an increase of 18,667 animals over the previous year. Deer hunters in every region of the state enjoyed an increase; however, two thirds of the increase in harvest was taken east of the Blue Ridge Mountains. Bowhunters experienced a record harvest of 15,687 deer for an increase of 16 percent, while the total take of 9,875 whitetails by blackpowder hunters was down two percent from the previous season. The influence of factors, like the abundant acorn crop, the weather, and hunter pressure all played a role in the outcome of the 1991-92 season. Hunting pressure was down and the unseasonably warm and dry weather left a lot to be desired, especially from a dog hunter's perspective.

Hunting season regulations for deer remain unchanged from last year with the exception of some emergency provisions for deer hunting in the City of Lynchburg which has a serious problem with overpopulation of whitetails.

With good hunting weather and hunter participation, Virginia deer hunters may once again rewrite the



record book with a white-tailed deer harvest approaching the 200,000 mark. Better quality deer in terms of size and condition and improved antler development should be the icing on the cake for what promises to be another great deer season in the Old Dominion.

**Black Bear  
by Biologist Dennis Martin  
Bear, Furbearer Project Manager**

The 1991 harvest of 663 was another record harvest. The harvest increased 102 percent from the previous year, but it is only about 30 percent higher than the 1984-90 average of 511.

Augusta County lead the state in harvest during 1991 with a record 73 being checked. Rockingham was the second highest with 64, followed by the most dramatic increase of any county in recent years with Alleghany yielding 60 bear. The next highest counties were Albemarle (49), Botetourt (46) and Nelson (41).

The proportion of females in the harvest was substantially decreased when the seasons were set to open later in the fall. This ratio continues to be about 7.5 percent less than prior to the changes.

The archer is permitted to harvest bear during the early bow season. Normally accounting for about 10 percent of the annual harvest, the bow hunter harvested 8.1 percent of the bear in 1991. Understandably, the proportion of females was slightly higher than later seasons, but amounted to only 45.3 percent.

The hunting forecast for black bear in Virginia in 1992 is being viewed with guarded optimism. Looking at harvest data, hunter pressure, season and checking station changes, potential weather conditions and combining this information with healthy doses of professional "gut" judgements, the bear harvest in 1992 should be about par with the previous harvests in recent years. A harvest in excess of 600 would not be a surprise.

Early oak mast observations in July suggest that good to excellent production can be expected in several areas, due in part to the late spring and abundant moisture. Thus, prog-

nosis for having good acorn production this fall and winter appear to be good, and black bear should be available to both the hunter and the non-consumptive observer.

On the flip side, the immediate and future impact of the gypsy moth is unknown. Recent research on the Shenandoah National Park suggests there are few short term consequences in the study area due in part to the flush of understory growth that comes after the death of older mast producing forests. It is felt that the longer term picture may not be as encouraging as the proportion of mast producing trees that make up Virginia forests decreases and forest canopies close. The bear is, however, an adaptable animal that is capable of feeding on a large variety of food sources. Furthermore, bear populations in many northeastern states have not shown severe impacts due to this pest. There may be shifts in populations and biologists may need to develop methods of evaluating these changes in bear habitats to provide ample information with which to make future decisions.

Weather is practically impossible to predict. With a lot of snow, high winds or extended cold rains a reduced bear kill will likely result, although bear hunters as a group are both hardy and dedicated, willing to "weather" whatever nature has to offer.

We made several changes in the system of checking black bear prior to the 1991 season. Special bear check stations were established to provide an opportunity to gather special and consistent information about the bear and the successful hunter. A small tooth is now required as part of the checking process, thus allowing the aging of practically all the harvested bear. Reports will be sent to all hunters about the age of their bear when they are returned.

The new checking system will permit opportunities of collecting better or specific data from bear that are harvested in the future. The strong support of the hunter has been very encouraging. They are to be commended for their patience, willingness to drive several miles to check their bear, and support in sup-



plying the teeth and other data that are requested.

Another season change will begin this fall. For the first time, bear hunters will be able to train their dogs without killing or harming the bear for a one-month period prior to the archery season in 1992. This training season will include both day and night hunting, and unlike the raccoon training season, will be permitted on National Forest and Department lands.

Relocating bears to portions of the state with low populations continues to be an objective of VDGIF. It appears that the relocation of more than 220 bears into southwest counties was successful. Reproduction has been observed and bear sightings have increased. Some bears have established home ranges near the release sites, while others have moved large distances. Several bears have been killed on the highway, primarily Interstate 77, and a few have been documented as illegal kills.





*Black bear; photo by Lloyd B. Hill.*

### **Wild Turkey by Biologist Gary Norman Upland Game Bird Project Leader**

Populations of wild turkey are increasing throughout most of Virginia and the 1992 record spring gobbler harvest indicates that wild turkey populations in Virginia have never been better. Our restoration efforts to relocate trapped wild turkey have been highly successful in expanding turkey populations and hunting opportunities. We recently completed releases of wild turkey on the Eastern Shore to complete the range expansion program. We are currently conducting research to learn more about the population dynamics of wild turkeys in Virginia. One phase of the research is designed to monitor nesting success and poult survival. While at this writing the field investigations are continuing to examine poult production, preliminary results suggest that wild turkey poult survival appears to be average or slightly above.

Early indications suggest fall

turkey hunters can expect good to excellent turkey populations. Spring breeding populations of wild turkey in many Virginia counties were believed to be at or above record levels. Food resources last fall and winter were excellent throughout most of Virginia and coupled with mild winter weather should equate to excellent physical condition in our wild turkey hens. The only potential factor that may mitigate these seemingly optimistic conditions was the wet weather observed during late May and June. Young wild turkey poults are vulnerable to prolonged wet weather conditions and these conditions prevailed in many areas in Virginia this spring. While young turkeys are vulnerable to weather through the first month of age, they are most vulnerable after they are about 2 weeks of age as the hen then lacks sufficient wing spread to "brood" all growing young. As the young turkeys grow in size, fewer and fewer numbers can be protected

under the hen's outstretched wings from the elements.

The 1992-93 harvest should surpass the 1991-92 harvest; however, a record fall harvest level is not expected. One of the major factors that should hold the fall harvest below the record 1990 harvest is the shorter fall seasons adopted in 33 counties during the 1992 season. The restricted fall season (8 week season) in most piedmont and north mountain counties was designed to reduce the fall harvest of wild turkey hens and thereby increase population trends and densities. On the other hand, mast conditions have a significant bearing on fall turkey harvest success rates. Hard mast conditions appear to be spotty and, generally speaking, a mast failure will result in higher turkey harvest figures. Turkey are more vulnerable to hunting when mast is limited and their home ranges are expanded as they seek adequate food supplies.

Most of the spring gobbling activity and harvest can be attributed to adult toms, 2 years of age and older. Therefore, reproduction 2 years prior to any given spring gobbler season has a significant bearing on the season success. Reproduction during the spring of 1991 was at or above average in most turkey regions and lend promise for an excellent '93 season. Coupled with the good recruitment of '91 and restrictions in fall harvest in many Virginia counties, another record spring harvest in '93 can be expected.

Weather conditions during the spring gobbler season can, however, affect hunting success. Although toms will continue to gobble during inclement weather conditions, it is thought that they gobble less frequently and are certainly more difficult to hear and locate. Lastly, the physical condition of toms in the spring may affect their gobbling intensity. When mast is abundant and birds are in peak condition, gobbling rates are thought to be greatest. Withstanding poor weather, spring gobbler hunters can expect another excellent season. Good hunting opportunities for spring gobblers can be found across the state, with the highest populations of birds being found





Raccoon; photo by David Vinyard.

in the tidewater region. Turkey populations throughout the state are believed to be below carrying capacities and the prospects for continued growth of populations and harvest is excellent.

### **Ruffed Grouse**

by Biologist Gary Norman  
Upland Game Bird Project Leader

Cooperating grouse hunters have for the last three years experienced flushing rates slightly below the long-term average for the 13 years of surveying conducted by VDGIF. Last year, grouse hunters flushed 0.98 grouse per hour. These rates are similar to 1989 and 1990 rates of 1.05 and 1.03 grouse per hour.

Reproduction in last year's grouse population was 50 percent. This figure indicates that recruitment of young birds in the population was better than the long-term average of 37 percent.

Forecasting wildlife populations is a difficult proposition for any species but especially difficult for grouse. Grouse populations are influenced, we believe, primarily by food resources (habitat), weather and predators. Grouse populations in Virginia enjoyed bountiful yields of hard and soft mast crops last year. As reproduction is believed to be linked to the physical condition of grouse

hens, the prospect for good reproduction this spring was very high. Weather, in turn, can negate the best of physical conditioning of grouse hens as young grouse chicks are vulnerable to prolonged cold wet weather. This year's record rainfall in many Virginia counties during May and June are reasons for concern as grouse populations may have experienced greater than average weather-related brood mortality.

Despite the wet spring, field observations of grouse broods through June have been encouraging. These observations lead me to speculate that the wet spring wasn't particularly hard on this year's production. Based on good spring breeding populations, excellent food conditions and promising field observations through the month of June, it is believed that average to above grouse populations can be expected this fall.

Mast conditions in grouse range appear to be potentially very good for soft mast and spotty for hard mast this fall. This distribution of mast may affect grouse habitat use this fall as well.

Hunters interested in participating in VDGIF Grouse Surveys should contact: Gary Norman, Upland Game Bird Program Leader, Rt. 1, Box 243A, Mt. Sidney, VA 24467.

### **Bobwhite Quail**

by Biologist Mike Fies,  
Small Game Research Biologist

Quail hunter success during the 1991-92 season ranked as the second worst in recent history. Statewide, the number of quail bagged per hunter hour averaged 0.30, down 21% from the previous year. The average number of coveys flushed per hour also declined sharply, down 23% from the previous season. Only during the dismal season of 1988-89 were fewer quail bagged and coveys flushed. Declines occurred in all climatic regions, with the greatest declines observed in the northern, west piedmont and east piedmont regions. Even in the normally productive tidewater region, hunter success declined 18% from last year. Age data from quail wings provided by sportsmen confirmed an unusually late hatch, which resulted in fewer

young birds produced in the fall. A severe drought throughout most of the spring and summer was probably the cause of last year's poor nesting success. Also, it is likely that excellent acorn and berry crops resulted in more quail frequenting habitats that were not typically hunted (woodlands and thick shrubby areas), making them appear scarcer than they really were.

Despite last year's miserable season, the prospects for the 1992-93 season look reasonably promising. A surprising number of quail have been heard calling this spring, supporting the idea that more quail were available last fall than hunter success data indicated. Extremely mild winter weather should also have resulted in excellent carryover in all regions. So far, adequate rainfall in the spring and early summer appears to have provided favorable early nesting conditions. If a drought occurs later in the summer, late nesting quail might be adversely affected.

The tidewater and east piedmont regions should be the most productive quail hunting areas this fall. Quail hunters in the west piedmont and northern regions should find more coveys than last year, but considerably fewer than in the eastern portions of the state. Poor hunter success is expected in the central mountain region and extremely low populations are anticipated for the southwest mountains. Overall, a modest increase in quail hunter success for the 1992-93 season is expected for most regions of the state.

### **Squirrels**

by Biologist Mike Fies,  
Small Game Research Biologist

Squirrel hunting prospects for the 1992-93 season look considerably better than they did a year ago. Following an excellent acorn crop in 1991, squirrel populations are rapidly recovering from the low numbers caused by food shortages a year earlier. Mild temperatures and minimal snowfall accumulations resulted in acorns being readily available throughout most of the winter months. Excellent soft mast production (grapes, dogwood, etc.) also contributed to the abundant food supply



in most areas. Adult squirrels entered the breeding season in excellent conditions and are believed to have produced a "bumper" crop of young squirrels this spring. In areas with significant gypsy moth defoliation, acorns were almost nonexistent and squirrel numbers are much lower.

Last year, squirrel populations were highest in the northern east piedmont and tidewater regions. Squirrel hunters in the west piedmont, central mountain, and southwest mountains will have to scout harder for good locations to hunt, but populations should be much improved over last year. Due to a regulation change in 1991, all Virginia sportsmen will again have the op-

portunity to hunt squirrels "early" prior to November. Early squirrel hunters are often most successful in areas where hickory nuts are available.

Sportsmen wishing to harvest a fox squirrel should consider hunting in Augusta, Bland, Highland, or Rockingham Counties where populations of this species are highest. Moderate fox squirrel populations also occur in Rockbridge, Tazewell, and Washington Counties.

**Mourning Doves**  
**by Gary Norman,**  
**Upland Game Bird Project Leader**

Virginia dove hunters can still expect good population levels as

weather conditions have been very favorable for corn and small grain crops. The first segment of the 92-93 season will run from September 5-November 4, and the second from December 14-22. This framework attempts to take advantage of locally produced and migrating mourning doves.

**Rabbits**  
**by Biologist Mike Fies**  
**Small Game Research Biologist**

Small game hunters in Virginia should find excellent populations of rabbits this season. Mild temperatures during the late winter and early spring enabled rabbits to get a "jump" on their reproductive efforts. Generous amounts of rainfall have resulted in lush vegetation for nesting, cover, and food. An abundance of young rabbits has been observed in almost all areas of the state. During the 1991-92 season, most rabbit hunters reported finding noticeably more cottontails than in recent years. All preliminary indications suggest that the 1992-93 season will be even better. Experienced rabbit hunters realize, however, that populations are often very localized and restricted to areas of suitable habitat. Thick, shrubby areas with plenty of winter cover will provide the best opportunity to add rabbit meat to your stew. A few well-trained beagles will also add to the enjoyment and success of your hunts. Public areas that receive intense hunting pressure should be hunted early while populations are still at relatively high levels. During the 1992-93 season, rabbit hunters should expect to find more rabbits in all areas of the state, with the best populations found in the western mountains. So, no matter where you live, get your beagles ready. The 1992-93 rabbit season should be a good one!

**Woodcock,**  
**by Gary Norman,**  
**Upland Game Bird Project Leader**

Populations of American woodcock are apparently responding favorably to restrictions in season length and bag limits imposed by the U.S. Fish and Wildlife Service back in



Wild turkey; photo by Brad Herndon.



1985. Long-term trends in spring breeding populations in the Eastern Management Unit indicate a declining population, but biologists feel the population may be stabilizing.

Woodcock hunters should watch for cold fronts that serve to initiate "flights" of these migratory birds. The two-segment woodcock season in Virginia will open November 2-28, and again from December 16-January 2. Typically, mountain hunters will find migration peaks during the first two weeks of the season. Piedmont hunters will probably enjoy hunting throughout the early season and the early part of the late segment. Tidewater hunters typically find migration peaking later in the early segment and in the late segment.

Last year, Virginia woodcock hunters enjoyed a better than average woodcock season. Piedmont hunters found birds throughout the early season and also found birds in the last two weeks of the late season. Tidewater region hunters reported high flushing rates in weeks 1 and 4 of the early season and week 6 of the late season.

Surveys conducted in Virginia this spring indicate that our breeding population was similar to last year's level. For fall populations to exceed the long-term average, recruitment or reproductive success will have to be good during the spring/summer of 1992.

## Waterfowl

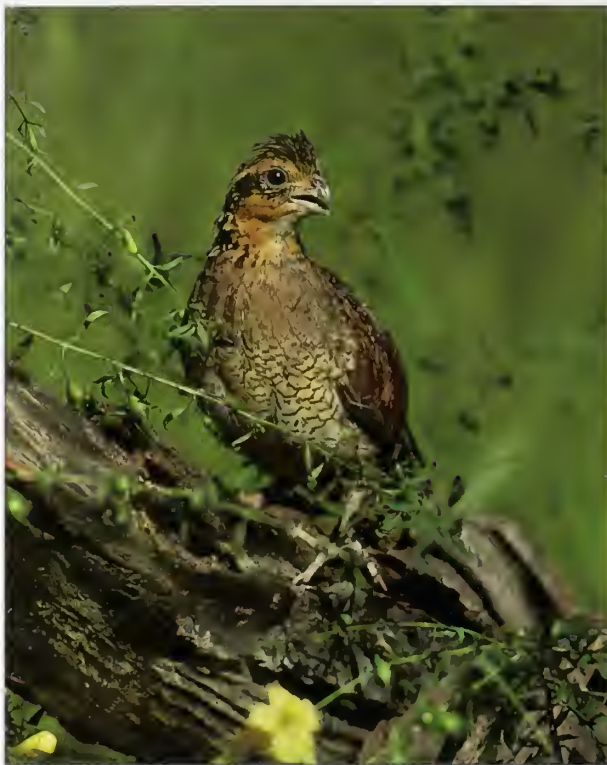
by Gary Costanzo,

Waterfowl Research Biologist

The outlook for duck production in the prairie pothole region this year is still poor. Hunting seasons and bag limits will probably remain the same as last year on most species in Virginia and the Atlantic Flyway. However, further restrictions may be implemented on some species, such as the pintail, if their numbers continue to fall. Pintail numbers have declined significantly in the last five years.

In the Northeastern U.S. and

Canada, wood duck, black duck, and mallard production appears to be about average. Habitat conditions are better than in the prairie region. A wet spring and early summer have provided adequate nesting and brood-rearing areas. However, the cool spring conditions delayed the



Bobwhite; photo by Lloyd B. Hill.

nesting season for a week or two, and may result in lower brood survival. Young ducklings cannot tolerate extended periods of cold and damp conditions.

In Virginia, duck nesting and production followed the same pattern as in the Northeast. The nesting season was delayed a week or two because of cool weather conditions, but production appears to be average or slightly better. Wood duck nest box checks show good numbers of nesting hens. Local wood ducks were still nesting as late as July because of the cooler and longer spring. Local black ducks should have an average production year. Many black ducks nests were flooded and destroyed by extreme high tides in early May. Renesting efforts have been good and ducklings should have enough time to fully mature before the fall weath-

er arrives. The local Canada geese that breed in Virginia also had a delayed but successful nesting season. These resident populations continue to increase in Virginia and other Atlantic Flyway states. Early September seasons for resident geese are now underway in a number of states.

Virginia is currently conducting studies to determine the numbers and movements of local geese, and hopes to offer an early September goose season in the future.

Migrant Canada geese, on the other hand, appear to be having another poor production year. The migrant geese that arrive in the fall and spend the winter in Virginia breed in the tundra region of northern Canada. Cold, wintery conditions were still evident in June on the tundra. This spring was one of the coldest on record in northern Quebec. The nesting season was very late and many birds may not have enough time to successfully fledge a brood of goslings. This is the fourth year in a row of poor production in the migrant goose population, and their numbers have been declining for the past several years. Hunting restrictions have been in place during

this period to reduce the harvest of migrant geese. However, additional restrictions may be implemented this season because of this year's poor production and the continued population decline. The greatest restrictions will occur in the Northeastern states, although some restrictions may also be implemented in the Chesapeake Bay region states.

Tundra swan production should be average to slightly below average this year because of the late spring. Swan numbers have been steadily increasing in the Atlantic Flyway, and last year's mid-winter flyway count was over 100,000 swans. Virginia's count of 7,200 was slightly above the average count of 6,000. Virginia will likely be offered a swan season again this year similar to the past seasons. Call VDGIF after Labor Day at 804/367-1000 for details.



## Virginia's Best Anglers

In the April 92 issue of *Virginia Wildlife*, we featured a list of the best anglers in Virginia in 1991. However, we unintentionally left a few great anglers off our list who definitely deserve recognition. They are:

### MASTERS:

Paul E. Minter of Fredericksburg

### EXPERTS:

Clyde Mahan of Farmville

Henry A. Wilson, Jr. of Charles City

Frank M. Zambrotto of Goochland

Our apologies go out to these anglers for not recognizing their accomplishments sooner. Congratulations to you all! □

## New Board Members Appointed

Three new members have been appointed to the Board of the Virginia Department of Game and Inland Fisheries by Governor L. Douglas Wilder:

Elsa A. Porter has been appointed to represent the Eighth Congressional District, succeeding Henry A. Thomas of Alexandria. She is a teacher, lecturer, and consultant to business and government on organizational innovation and effectiveness. She is Vice President for Research and Development of The Maccoby Group, consultants for strategic development.

Appointed to represent the Ninth Congressional District is Thomas A. Cash. He succeeds Eli B. Jones, Jr. of Tazewell. Currently, Cash is Coordinator of Audio-Visual Services and Telecommunications of Southwest Virginia Community College in Tazewell County. He has served on the Tazewell County Board of Supervisors, the Cumberland Plateau Planning District, The Virginia Community College Association, and the Virginia Coal Council.

For the newly formed Eleventh Congressional District, Governor Wilder has appointed Dr. Laurence R.

Jahn, a conservationist/biologist residing in Vienna. Dr. Jahn is past Board Chairman of the United Conservation Alliance and has served as Board Chairman of the Wildlife Management Institute. Prior to that he was a Wildlife Research Biologist with the Wisconsin Department of Natural Resources. □

## VW Writer Honored

The Outdoor Writers Association of America (OWAA) honored Carol L. Sipos of Black Lick, Pennsylvania with a second place award in OWAA's Family Participation/Youth Outdoor Education magazine article contest for her entry "The Perfect Hunter" which appeared in the December 91 issue of *Virginia Wildlife*.

OWAA is a 1,950-member group of writers, photographers and artists from around the country who yearly hold a contest to determine the best outdoor writers in the nation. We are proud to have featured Ms. Sipos' award-winning article first—in *Virginia Wildlife*! □

## Putting Their Money Where Their Mouths Are

Over six million dollars, largely generated from waterfowl hunters around the country, has been released for waterfowl and wetlands projects that will add almost 3,500 acres to the National Wildlife Refuge System, bring another 1,250 wetland acres under long-term protection in Canada, and improve 23,000 acres of wetlands in North America. Over \$4.5 million for these projects comes from the Migratory Bird Conservation Fund, which consists primarily of money received from the sale of the Federal Migratory Bird Hunting and Conservation Stamp ("Federal Duck Stamp") that must be purchased by all waterfowl hunters 16 years and older. By law, this money must be used to acquire waterfowl habitat. □

## Letters

### The Cat Controversy

This is just a short note to express our appreciation for your article "Exotic Delights—Pleasures or Plagues" published in the June issue.

Needless to say, this article was and is badly needed, especially with respect to cats that are allowed to roam out of doors. Much of this we were aware of but we must confess, we were not aware that the threat was so bad, especially from cats. Needless to say, this article will be much copied and distributed.

We also appreciate your articles on plants, etc. that one can plant and grow to help wildlife. We have taken much of the information you have presented and put it to good use.

We appreciate all you do and we contribute to your effort.

Mr. & Mrs. James N. Drane  
Manassas

How ludicrous that a magazine so devoted to human killers of wildlife would print an article such as "Exotic Delights—Pleasures or Plagues?" by Joseph Mitchell (June issue), which depicts domestic cats as wholesale slaughterers of songbirds and small mammals. Based on the data he uses, Mitchell's conclusions are pure fantasy. From a Humane Society estimate of one cat for every 5.9 people and a census count of 6,187,358 Virginians, he estimates 1,048,704 "free-ranging" cats in the Commonwealth; he neglected to ascertain the percentage of cats that are strictly indoor pets. To determine the per-cat kill potential, he uses an 11-month tally for his own four "urban" cats—not a very representative sampling. (That two of his free-ranging urban cats were killed by cars during the tally emphasizes the importance of confining city kitties.)

It is true that the domestic cat is an introduced predator of birds and small mammals. What Mitchell fails



to mention, however, is that these cats don't come close to replacing the predators that were native to this region before they were hunted to extinction by humans. The declining populations of the native wildlife species he laments are not a result of domestic-cat predation; they are the result of human-caused environmental pollution and destruction of habitat. Mitchell's comparison of cats to harmful exotics such as the gypsy moth and chestnut blight is like comparing a beaver to a chainsaw. As a conservation biologist, he should know better.

The last page of this article, which contains a photo of a house cat with a dead bird, is juxtaposed with a photo of three men proudly showing off three dead, stuffed game birds and one dead, stuffed fish. I wonder if this was the work of a humorous layout artist or just serendipity? Cats kill because their instinct compels them to do so; humans are the only species that kills for the fun of it or for a trophy to hang on the wall.

Shireen I. Parsons  
Blacksburg

Your June 1992, issue of *Virginia Wildlife*, is a disappointment to me. The featured article, starting on page four, entitled "Exotic Delights—Pleasures or Plagues?" is out of balance and, in my opinion, unfair to cat owners.

The author of the article writes about "feral," cats and provides information as to how he figures that there are some 1,048,704 such cats in Virginia and some 60 million in the nation.

I do not know how the author defines the word "feral," but it is difficult for me to imagine domestic cats being considered feral under any definition of the term. I thought that feral animals are creatures that evolve or move from the state of domestication to that of "wildness." Domestic cats do not do that. They are incapable, at least in most cases, of surviving in the wild but for a few weeks or months, depending on how lucky individual ones are in finding food during the first week or so of their freedom.

Generally speaking, only a few cats that are dropped off on highways or are otherwise abandoned by "nice" citizens ever manage to survive beyond a short period of time, much less managing to mate and care for kittens.

I would hope that the author of your article, along with his colleague, Ruth Beck, would find a more appropriate critter than cats to whomp-up-on! I would recommend the blue jay as a more appropriate creature to go after.

I understand that blue jays are native to our country, not one of those hated imports, and that the only value they give us, other than being beautiful to look at, is the fact that in early colonial days they occasionally would wander out of the "deep forests" and be seen doing their jerky and erratic movements—thus, giving rise to the term "jay walking" to country people who came to the city and did not realize that they should walk across a street at the corners.

I believe that a modest amount of research would reveal that blue jays kill far more songbirds and other small creatures than cats. Common observation reveals that blue jays hunt for and destroy songbirds' nests, eat the eggs, and/or carry away the baby birds. I have personally observed them killing and carrying away baby cardinals, wrens and towhees. In other words, if we want more songbirds, we should control the blue jay population.

If you happen to have an affinity for blue jays and are unable to go after them, please holler. I can name several other songbird killers and destroyers that are much more destructive than folks' little kitty cats.

I am not necessarily a cat admirer, but I do not like for them to take an unnecessary "bum-rap." Cats bring much more happiness to people than few shrews, voles, garter snakes and the like.

W. Lester Duty  
Richmond

Reply from Dr. Mitchell:

*I am pleased to see the controversy generated by my article on introduced species. Both Mr. Duty and Ms. Parsons make valid points and both make errors of judge-*

*ment and interpretation.*

*My article was not about feral cats. It pertained only to domestic free-ranging cats. There are no estimates of feral cat numbers in Virginia because of the difficulty in counting them. The ratio of people to cats (5.9 to 1) is a crude estimate, as is the 1990 human population census (remember all the problems?). It is impossible to determine what percent are strictly indoor cats. Thus, extrapolation to all domestic cats in Virginia from the small data set derived from the short-term studies Ms. Beck and I conducted is fraught with errors.*

*The article was not a report on how many native songbirds, mammals, and reptiles were killed by these cats. It was instead a demonstration of the potential magnitude of the loss of native species caused by this introduced (alien) predator. If there are indeed a million domestic cats in Virginia and only a quarter of them kill on average a songbird a month, then that is still an annual loss of three million birds. Cats can be compared to gypsy moths because both are harmful to native species. Be thankful we don't live in Australia where there are cat eradication programs and curfew laws established by conservation biologists. My point was that introduced species, including cats, should be included in the list of causes of native species decline in Virginia.*

*The problem is not how many native animals are being killed by cats. We already know it is substantial, although more accurate data based on broadbased studies would be helpful. What we really need to know is what people are willing to do about it.*

*Mr. Duty is correct in stating that blue jays kill songbirds, although they actually eat their eggs and nestlings. Blue jays are native species and for that reason were not included in my article. How they contribute to the decline in songbird populations relates to the loss and fragmentation of forest habitat and creation of fields, open woodlands, and edge by human activities.*

*Ms. Parsons, who apparently took my cat story personally and appears to have an anti-hunting philosophy, should read the book *Virginia's Endangered Species*. She would find that Virginia's extinct species were, with the exception of the mountain lion, large herbivores and fruit and seed-eating birds. The predators of small mammals and birds in existence today are the same ones present before Europeans arrived. We humans have upset the balance of*



predator-prey relationships by changing and reducing their habitats, killing native predators, and introducing chemicals and non-native species. Domestic house cats do indeed contribute to the problem. It's a shame that some people cannot accept that fact.

## Good Books

Our readers are doing their best to keep the rest of us buried in good reading! (Please keep it up—send your favorite outdoor titles to us c/o Editor).

Randolph Goode of Richmond sends us his list of favorites:

*Great Possessions*, by David Kline (North Point Press, San Francisco, 1990). "This book is an incredible look at nature during the four seasons."

*The Clam Lake Papers*, by Edward Lueders (Festival Books, 1982, previously published by Harper & Rowe, 1977). "An amazing book about winter and nature and solitude."

*Crossing Open Ground*, by Barry Lopez (Vintage Books, 1989). "Just great writing."

Russ Gibson, a professional with the Department of Natural Resources in Ohio writes:

"The following is a very short list of books that I have found through the years that should be on a 'must read' list for any serious outdoorsperson:"

*Deep Enough For Ivorybills*, by James Kilgo (Doubleday Dell Publishing Group, Inc. N.Y., 1988). "This is an excellent collection of short stories and recollections of hunting, fishing and companionship in the South. It is an extremely well-written and readable book that is very thought-provoking. Not at all a collection of 'Me & Joes.'"

*Moss, Mallards and Mules*, by Bob Brister (Winchester Press, N.Y. 1973). "This is a good collection of a very rare commodity: outdoor fiction. Mr. Brister spins an excellent tale of outdoor activities ranging from bass fishing to duck hunting and everything in-between. This book may be out of print, but is well worth searching out in a local library."

*Never Cry Wolf*, by Farley Mowat (Bantam Books, Inc., N.Y. 1973). "Al-

though not a book dealing directly with hunting or fishing, *Never Cry Wolf* is an outstanding piece of fiction that would be welcome reading by anyone interested in more than 'how-to' outdoor guides. This is a thought-provoking book dealing with one biologist's experience with wolves of the far North...offering insight into wolf behavior and just as effective insight into man's behavior.

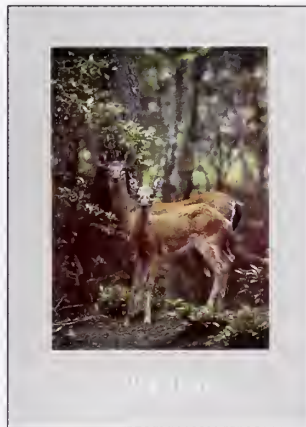
"There are several other noteworthy books covering outdoor topics currently in print," continues Mr. Gibson, "though not all of them cover hunting, fishing or the more traditional outdoor pursuits. Most notably, I recommend *Crossing Open Ground* by Barry Lopez (see above) or *Wilderness Sojourn* by David Douglas. Lopez is more philosophical; Douglas is more spiritual."

And, on the "just published" front, here is a list of new books we've recently received here at Virginia Wildlife:

*Peterson Field Guides: Eastern Butterflies*, by Paul A. Opler/Vichai Malikul (Houghton Mifflin, N.Y. 1992) Price: \$16.95 paperback, \$24.95 hardbound. The book describes 524 species, including the identifying marks, range and habitat, and includes chapters on butterfly study, gardening, and conservation.

*Easy Fish and Game Cooking*, by Joan Cone (EPM Publications, Inc., Mclean, VA 1991) Price: \$12 from Joan Cone, 109 Will Scarlet Lane, Williamsburg, VA 23185. Over 185 pages of wild game recipes from venison to beaver, and fish recipes from fish steaks to scallops. Joan uses many recipes she has featured in *Virginia Wildlife* plus many more in a convenient spiral-bound volume.

*Outdoor Tables and Tales*, recipes and food memories, by the Southeastern Outdoor Press Association (The Wimmer Companies, Memphis, TN 1992). Price: \$14.95 spiral bound from The Wimmer Companies, Inc., 4210 B. F. Goodrich Blvd., Memphis, TN 38118. More than 250 recipes from Mother Nature's bounty for most species of Southern game and fish to be prepared in modern kitchens. This "combination" book bags its limit in recipes and food memories as America's top outdoor writers share recipes and tales from around the campfire. □



### Virginia Wildlife Posters Order yours today!

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Supplies are limited, so specify which poster(s) you'd like us to send to you, make your check out to the Treasurer of Virginia (send \$8 for each poster ordered), and mail your order to:

Virginia Wildlife Poster Offer, VDGIF, 4010 W. Broad Street, Richmond, VA 23230-1104.

Do it today!



# Photo TipS

By Lynda Richardson

## The Tupperware Softbox

I was going to die. Spread-eagled over a 30-foot drop, I looked down into the blackness trying to angle my helmet light in the direction of travel. Thirty pounds of camera gear in the knapsack on my back didn't help matters. I was losing my grip.

"I just want everyone to know I'm REALLY scared!" I gasped to fellow adventurers somewhere in the darkness. A helmet light turned toward me.

"Just put your foot here, move your hands here and inch on down... piece of cake."

"Easy for you to say," I mumbled between chattering teeth. "In a minute, I'll be a piece of cake, a flattened piece of cake!"

A trickle of sweat etched its way down my cheek as I tried to move an arm. Suspended over the hole, I wasn't in the mood for falling into the icy stream below. Besides, if I did fall, I might crush the very object of my precarious photo adventure, a tiny shrimp-like crustacean called an isopod.

Isopods are colorless creatures which only reside in the clear, clean waters of some caves. Being very sensitive to changes in their environment, isopods serve as "indicator species," signalling the demise of water purity by their deaths. I was interested in photographing these curious creatures after reading that Virginia was home to isopods which live nowhere else in the world. We even have one listed on the federal endangered species list. So, I sent myself on a mission: to photograph some of Virginia's threatened and endangered isopods.

To do this, I discussed my self-assignment with hubby Tim Wright and we came up with the perfect isopod photo setup: the Tupperware softbox. Last spring, Tim had been playing around with macro photography and learned that by cutting out the bottom of a medium-sized plastic food storage bowl, placing it over a

choice is always my Canon 100mm f4 Macro. Though you can use a 55mm macro, closeup rings, or even a bellows, I prefer the luxurious working distance that a 100mm provides. The 55mm macros and closeup lenses often force me to be uncomfortably close to my subject, sometimes accidentally knocking it or the plastic bowl out of the picture!

As with all wildlife subjects, (remember you aren't photographing rocks or statues), knowing the technical camera stuff isn't enough. In this situation, I had to figure out how to confine a water-loving subject to the space beneath my bowl. So, I built a transparent swimming pool. By taking an 8" x 8" square of plexiglass, and making a circle with a 1/2" high bead of silicon rubber, I created an area which could be filled with water. After letting it "cure" for 24 hours, I could easily transport

my swimming pool into the cave. When my subjects had been coralled, I balanced the plexiglass on some rocks just above the surface of their underground stream. Then, with lights and bowl in place, I added my subject. As the confused isopod did laps around the pool, I simply clicked away when it paddled into view.

The Tupperware bowl technique works with other subjects as well because the principle is the same inside or outside a cave. Shells, rocks, insects and small flowers would all be worthy subjects. You can even obtain different-sized bowls for different-sized subjects.

With Tupperware softbox in hand, my "near-death" experience photographing isopods really did end up being a piece of cake. □



*This Prices' Isopod was photographed deep inside Endless Caverns using the "Tupperware softbox" technique; photo by Lynda Richardson.*

subject and adding a strong light source, one could produce beautiful diffused light inside the bowl. Sometimes the noonday sun was a light source and at other times (like in caves) we used flash equipment.

Flash equipment is great for this setup because it creates a dependable output of light. By combining two flashes, each positioned at a 45 degree angle to your Tupperware softbox, you can have enough light to photograph even the tiniest cave critter in the darkest of caves. By varying the distance of the individual flashes, you can create a main light and a fill light. This avoids making the light too uniform or "flat." On film, flat light can rob a subject of its texture and depth.

When choosing a lens for use with the Tupperware softbox, my first





## Put Safety First

by Col. William Antozzi, Boating Safety Officer



Don't forget your PFD; photo by F. Eugene Hester

Among young people, drowning is the second greatest reason for accidental deaths in the United States. At this time of year, we can expect lots more drownings, so a hard look at water-related deaths is in order.

The Army Corps of Engineers recently made a study of water-related fatalities, over the past five years, at the hundreds of lakes and reservoirs managed by that agency. They found that nearly 90 percent of those who died in and around the water were not wearing personal flotation devices (also known as life jackets).

The study was a fairly easy job for the Army Corps of Engineers because that organization manages 60 lakes throughout the United States and provides public recreational facilities at all of them. According to Corps officials, there were 650 million visitors to their lake projects between 1986 and 1990 and during that same five-year period there were 1,107 water-related fatalities. It is interesting to note that 88 percent of all

fatalities were male. They also said that 19 percent of deaths were the result of powerboat accidents, 3 percent were non-powerboat accidents and less than 1 percent each were caused by waterskiing and sailing accidents. Fishing accidents, mostly from boats, accounted for 17 percent of the fatalities. The remaining deaths occurred while people were in the water either swimming, trying to swim or wading.

Virginia is a wet state and there is plenty of water-sports activity here. It is a well-known fact that most boating fatalities are the result of falls overboard, including capsizing. The Coast Guard, which tabulates boating accident data each year, states that alcohol is a factor in at least 50 percent of all boating-related fatalities. The same conclusion has been reached by Virginia officials.

An example of the deleterious effects of alcohol on the human brain is the occasional propensity of intoxicated people, when they fall into the

water, to swim downward to their deaths. The reason, of course, is the disorienting effects of alcohol.

Since there are so many falls overboard resulting in death, vessel operators should be prepared to deal with falls from moving vessels. When a person falls, the boat operator should turn the bow toward the person in the water. Because a boat turns or pivots at a point near the center, the stern will then swing away from the one who fell overboard, thus moving the dangerous propeller away from the possible victim.

Listed below is a 1991 Virginia report of fatalities showing the location, boat type and alcohol use. It should be noted that the incidents are pretty well distributed across the state, but the boats involved are small ones and the alcohol use is about 50 percent.

Boating accidents can be avoided by paying strict attention to where the boat is headed and by avoiding alcohol use during operation. □

DATE	BODY OF WATER	BOAT TYPE	ALCOHOL USE
4-7-91	Holston River	jon	yes
4-5-91	James River	canoe	no
4-30-91	Shenandoah (NF)	jon	unknown
5-22-91	York River	jon	yes
4-06-91	James River	canoe	no
6-01-91	Broad Bay	runabout	yes
5-19-91	Private Lake	canoe	no
7-14-91	Philpott	bass	yes
7-9-91	York River	runabout	no
7-4-91	James River	fishing	yes
7-21-91	Shenandoah (SF)	canoe	no
8-23-91	Hampton Creek	bow rider	no
5-11-91	Private Pond	jon	yes
9-07-91	Elizabeth River	cruiser	yes
9-15-91	I.C.W.	runabout	no
12-27-91	Rappahannock	jon	no
8-23-91	Chickahominy	runabout	yes
11-16-91	Smith Mtn. Lake	jon	yes



# Recipes

By Joan Cone

## Woodcock And Snipe— Kissing Cousins

Woodcock and snipe are both classified as shorebirds. This does not make too much sense when you consider that woodcock live entirely on earthworms and are found mostly in wooded areas with rich soil producing plenty of worms and grubs.

Snipe, on the other hand, are smaller than the quail-sized woodcock, have longer legs and are found wading in shallow ponds and edges where they seek snails, tadpoles and other visible living things.

The best way to tell these birds apart, in addition to size, is that the dark bands on a snipe's head are parallel with its body, while those of woodcock go transversely. Woodcock appear stockier and have shorter wings.

### MENU

*Baked Cream Cheese Appetizer*

*Curried Woodcock Or Snipe*

*Early Fall Vegetable Bake*

*Preserved Figs*

*Winnie's Apple-Pecan Pound Cake*

### Baked Cream Cheese Appetizer

1 can (4 ounces) refrigerated crescent dinner rolls

1/2 teaspoon dried whole dill weed

1 package (8 ounces) cream cheese

1 egg yolk or 1/4 cup egg substitute

Unroll dough on a lightly floured surface and press seams together to form a 12 x 4 inch rectangle. Sprinkle and gently press minced dill weed onto top of cream cheese. Place cream cheese, dill weed side down, in center of dough. Bring up sides of dough snugly around cheese, pinching to seal. Place seam side down on a lightly greased baking sheet. Brush with egg yolk. Bake at 350 degrees for 20 to 22 minutes. Serve warm with crackers. Makes 16 appetizer servings.

### Curried Woodcock or Snipe

4 woodcock or 8 snipe, split down back

2 tablespoons margarine or butter

1 teaspoon instant minced onion

1 tablespoon flour

1 can (10-3/4 ounces) chicken broth

1 teaspoon curry powder

Salt to taste

Melt margarine in skillet or electric frypan and brown birds, breast side down. Turn and brown on opposite side. Remove birds from skillet. To drippings in skillet add instant minced onion and flour. Mix well and then gradually add chicken broth, stirring constantly. Add curry powder and salt. Return birds to skillet, cover, and simmer for 15 to 20 minutes or until birds are fork tender. Allow 2 woodcock per serving or 4 snipe.

### Early Fall Vegetable Bake

4 tablespoons olive oil

2 large Idaho potatoes, 3/4 pound each, skin left on

2 zucchini, 1/2 pound each

3 ripe tomatoes, about 1 pound total

1/8 teaspoon garlic powder

Salt to taste

Ground black pepper to taste

1/2 cup chopped parsley

Finely grated zest of 1 lemon

Preheat oven to 375 degrees. Lightly grease a 9 x 13-inch shallow baking dish with 1 tablespoon olive oil. Cut the potatoes, zucchini and tomatoes into very thin slices crosswise. Lay potatoes along entire bottom of dish, overlapping the slices by half. Drizzle with 1 tablespoon of olive oil and sprinkle with salt and pepper. Cover the potatoes with zucchini slices. Drizzle with another tablespoon of oil. Sprinkle with salt, pepper, garlic powder, 1/4 cup parsley and lemon zest. Cover zucchini with the tomato slices, remaining oil, pepper and remaining parsley. Bake for 40 minutes or until potatoes are tender when pierced with the tip of a sharp knife. Makes 4 to 6 servings.

### Preserved Figs

Many friends enjoy this recipe and ask me for it. Figs are easy to prepare and make an ideal accompaniment for all game.

1 quart firm figs

2 pounds or 4 cups sugar

3/4 cup water

1 lemon sliced

1 cinnamon stick

12 cloves

Wash fruit carefully in colander. Let sugar and water come to a boil in a large, deep pot. Tie cinnamon stick and cloves in a small cheesecloth bag. Add lemon slices and spice bag to the boiling sugar and water. Add figs and boil slowly, stirring occasionally, until figs are tender, about 20 to 25 minutes. Lift fruit carefully into sterilized jars and cover with hot juice. Seal while hot.

### Winnie's Apple-Pecan Pound Cake

3 cups all-purpose flour

1 teaspoon baking soda

1 teaspoon salt

1/2 teaspoon cinnamon

1/2 teaspoon nutmeg

1-1/4 cups vegetable oil

2 cups sugar

3 large eggs

2 teaspoons vanilla

2 cups pared and finely chopped cooking apples

1 cup chopped pecans or walnuts

1/2 cup raisins, if desired

Combine flour, baking soda, salt, cinnamon and nutmeg; set aside. In a large bowl beat together at medium speed oil, sugar, eggs and vanilla until thoroughly combined. Gradually beat in flour mixture until smooth. Fold in apples, pecans and raisins. Turn into a greased 10-inch tube pan. Bake in a preheated 325 degree oven for 1 hour and 15 minutes, or until cake tester comes out clean. Cool on rack for 10 minutes before removing from pan. Makes 16 to 20 servings. □



**M**any of Virginia's wildlife are in danger. Suffering from habitat loss and the dangers of pollution which threaten their survival, many species in the state are struggling to survive.

The Department of Game and Inland Fisheries is responsible for the protection and conservation of all wildlife in Virginia, but we receive no state tax dollars, and we need your help to do our job. Help us fund critical research and management programs for the state's nongame and endangered species by contributing to our Nongame Wildlife Fund, which is supported solely by voluntary contributions made through our state tax-checkoff program and direct giving.

To make a donation, simply send your tax-deductible check (made payable to the Treasurer of Virginia), to: Virginia Nongame Wildlife Fund-VW, Virginia Department of Game and Inland Fisheries, P.O. Box 11104, Richmond, VA 23230-1104.



*We're fighting for  
their lives*

Least bittern; photo by Joe Mac Hudspeth.

### *Resource Guide Available on Virginia's Endangered Species*



**O** rder the only comprehensive resource guide on Virginia's Endangered Species for \$32.95 (soft-cover) or \$59.95 (hardcover). This 675-page guide identifies and describes more than 250 rare and endangered plants and animals in Virginia. Produced by the Virginia Department of Game and Inland Fisheries and other state natural resource agencies, this book documents the latest scientific information on Virginia's endangered species, information which is available in no other publication.

Send your check plus 4.5 percent sales tax and \$3.00 shipping and handling charges to: McDonald and Woodward Publishing Company, P.O. Box 10308, Blacksburg, VA 24062-0308. Phone: (703) 951-9465.

To order a **Virginia's Endangered Species poster** of the illustration featured left, please write a check for \$8 made payable to: Treasurer of Virginia, and send to: VA Endangered Species Poster Offer, Attn: Diane Davis, VDGIF, P.O. Box 11104, Richmond, VA 23230-1104.



# Virginia's Wildlife

photo by Karl and Steve Maslowski



## The Star-nosed mole (*Condylura cristata*)

by John Pagels

**I**t certainly was different. Pat had caught it beside the small creek in our backyard and put it in one of those plastic dimestore "shoe boxes." Unlike the live common moles and hairytailed moles that I had seen, this star-nosed mole scampered around and would get up on its hind feet on the side of the box and jump. Sure, it couldn't have touched the rim, but it jumped. More on its mobility later.

The star-nosed mole has the usual mammal and mole characteristics, but in no way is it typical. Unlike our other moles, it has a long tail. But unlike the long tails of most mammals, its tail is thick or fat appearing, especially in winter and early spring as the result of fat deposition. It seems that the tail of the star-nosed mole can act as an energy reservoir during the reproductive season.

Interestingly, long ago, the animal was described and named based on an inaccurate drawing that depicted its tail with ridges down the middle, hence its generic name *Condylura*, from the Greek *condyl* which means knobby, and *ura* or tail.

At the head end it's very different from other mammals and other moles. Its specific name *cristata* is de-

rived from the Latin *crista* which means tuft or ridge, and it refers to the 22 fleshy appendages that surround the nares. These nasal rays contain very sensitive receptors for the sense of touch and allegedly can also perceive electrical impulses that are produced by their prey during movement.

The prey of the star-nosed mole is somewhat variable, but it almost always is some sort of invertebrate; very often worms or larvae of aquatic insects. Their cheek teeth have W or M-shaped sharp cutting edges that are ideal for their invertebrate food supply.

The star-nosed mole is almost always associated with water and found in marshy ground near streams or ponds. It is a very good swimmer and takes advantage of that ability not to just get around, but also in its feeding activities. Their burrows often open underwater. Through the years in North America probably thousands of star-nosed moles have been captured incidentally in traps set for minnows and even in muskrat traps.

The star-nosed mole doesn't hibernate and is active night and day. With a range that comprises much of the Northeastern United States and

parts of Canada, year-round activity would suggest great problems during cold months. Not surprisingly, similar to other nonhibernating mammals that are associated with water, for example the beaver and muskrat, the star-nosed mole is active under the ice in winter months.

The star-nosed mole is reproductively active in the warm months and has one litter per year with an average of five young per litter. At birth the young are tiny and hairless except for a few whiskers around the face. Their feet are well developed and the fleshy tentacles are formed, but covered for a time by a membrane. Indeed, like other newborn young, including baby bats, pygmy shrews, flying squirrels, humans and puppies, they are a sight to behold.

The term to describe the subterranean activities and adaptations of animals such as moles is fossorial, but as suggested above by its running, jumping and swimming activities, the star-nosed mole is less fossorial than most moles.

Occasional above-ground activity can also lead to its demise; it is often the prey of nonfossorial predators, including several species of hawks and owls. I've often seen them as road kills farther to the north where they are more common. In fact, a road-killed specimen I found on the University of Richmond campus a few years back was the first documented record for the star-nosed mole in central Virginia. Colleague Charlie Blem and myself had just finished a road race on the campus. There we stood, sweaty, half out of breath staring at and exclaiming about this completely smushed, dried out, turned inside out, GREAT FIND that I held in my hand. As we hear so often, "A mole in the hand is worth two..." Whatever.

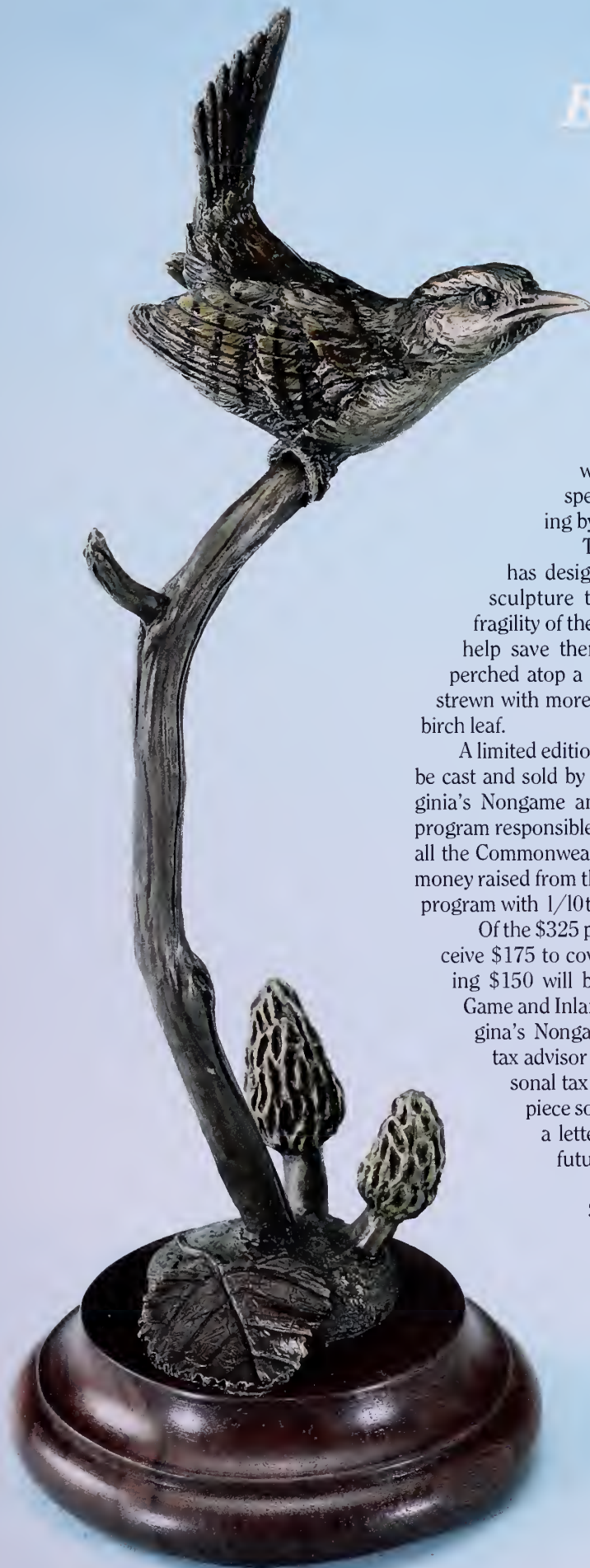
We're still trying to learn more about the star-nosed mole, especially here in Virginia and farther to the south. If you've seen or found the critter, I'd be happy to hear from you.

---

John Pagels is a mammalogist at Virginia Commonwealth University.



## Buy one for a Song



The cheerful *chip, chip, chip, de-da-a, te-dee* of the Bewick's wren is seldom heard in the mountains of Virginia anymore. Declared endangered in Virginia, the Bewick's wren represents just one of many species of wildlife whose survival is hanging by a thread in our state today.

Thus, David Turner of Turner Sculpture has designed this delicate 12-inch high bronze sculpture to draw attention to the beauty and fragility of the Commonwealth's wildlife in an effort to help save them. The enchanting Bewick's wren is perched atop a limb that pokes up from a forest floor strewn with morels and a single rare Virginia round-leaf birch leaf.

A limited edition of 200 of these bronze sculptures will be cast and sold by Turner Sculpture solely to benefit Virginia's Nongame and Endangered Species Program, the program responsible for the management and protection of all the Commonwealth's rare and endangered wildlife. The money raised from the sale of this sculpture will provide the program with 1/10th of its present operating budget.

Of the \$325 purchase price, Turner Sculpture will receive \$175 to cover their production costs. The remaining \$150 will be sent to the Virginia Department of Game and Inland Fisheries as your contribution to Virginia's Nongame and Endangered Species Fund. A tax advisor should be consulted regarding the personal tax deductibility of this contribution. Each piece sold will include a certificate of origin and a letter confirming your contribution to the future of Virginia's wildlife.

Order your sculpture by sending a \$325 check made out to Turner Sculpture to: Turner Sculpture, Box 128, Onley, VA 23418. For credit card orders, call: (804) 787-2818.



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Fishing Day  
September 26, 1992*